DOCUMENT RESUME

ED 079 973 EM 011 320

TITLE	Symposium on Urban Cable Television. Volume I. Wednesday, October 18, 1972. Session Themes: Social and Economic Context, Realizing Cable's Potential.
INSTITUTION	Cable Television Information Center, Washington, D.C.; Mitre Corp., McLean, Va.
REPORT NO	MITRE-73-11
PUB DATE	Mar 73
NOTE	263p.; See Also EM 011 321, Volume II; To be edited into a book, "The Coming World of Cable" by Ralph Lee Smith
AVAILABLE FROM	The Mitre Corporation, Westgate Research Park, McLean, Virginia 22101
EDRS PRICE	MF-$0.65 HC-$9.87
DESCRIPTORS	*Cable Television; Communications; Comparative Analysis; Conference Reports; *Economic Factors; Historical Reviews; Innovation; Institutional Role; *Planning; *Policy Formation; Political Issues; *Social Problems
IDENTIFIERS	CATV; National Cable Television Association; NCTA; *Symposium on Urban Cable Television

ABSTRACT

A transcript of the proceedings of the opening day of the Symposium on Urban Cable Television is provided. The Symposium was convened to discuss, clarify, and offer alternatives to the major social, economic, and institutional issues affecting cable television (CATV) planning today with a view toward their impacts on the future directions of cable. The record of the morning session deals with the economic and social context and features a presentation on future social and economic developments and their implications for cable communication. Following this are considerations of the impact of cable and the degree to which cable marks a real innovation in communications. The afternoon session's transcript focuses on the subject of realizing cable's potential, contrasting what cable is today with what it could be in the future if its full social and civic potential is achieved. (Author/PB)

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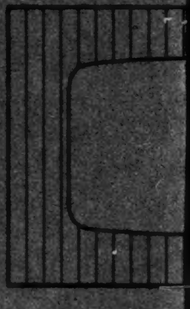
SYMPOSIUM ON URBAN CABLE TELEVIS

WEDNESDAY, OCTOBER 18th, 1972

SESSION THEMES:
SOCIAL AND ECONOMIC CONTEXT
REALIZING CABLE'S POTENTIAL



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Volume I

SYMPOSIUM ON URBAN CABLE TELEVISION

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OCTOBER 18th, 19th, and 20th, 1972

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March 1973

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Volume I

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WEDNESDAY, OCTOBER 18th, 1972

SESSION THEMES:
SOCIAL AND ECONOMIC CONTEXT
REALIZING CABLE'S POTENTIAL

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ABSTRACT

This report provides a transcript of the proceedings of the first-day sessions of the Symposium on Urban Cable Television. The purpose of this Symposium was to discuss, clarify, and offer alternative approaches to the major social, economic, and institutional issues affecting CATV planning today with a view toward their impacts on the future directions of cable in the U. S. This Symposium was sponsored by The MITRE Corporation in cooperation with the Cable Television Information Center and was held at The MITRE McLean Offices on October 18th, 19th, and 20th, 1972.

The conference was opened on October 18th with introductory and welcoming remarks by Charles A. Zraket, Senior Vice President of The MITRE Corporation, W. Bowman Cutter, Executive Director, Cable Television Information Center, and Lloyd Morrisett, President, The Markle Foundation and General Chairman of the Symposium. The morning session was entitled "The Social and Economic Context" and featured a lead-off presentation on "The Future Social and Economic Context: Implications for Cable Communication" by Dr. Herman Kahn of the Hudson Institute. Dr. Amitai Etzioni, Director of the Center for Policy Research and Professor of Sociology at Columbia University gave a presentation on "The Impact of Cable Communications on the Political Process" and Professor Anthony E. Oettinger of the Aiken Computation Laboratory at Harvard University and a Commissioner of the Massachusetts CATV Commission addressed the topic of "The Historical Aspects of Communications: Is Cable Really a Change?"

The theme of the afternoon session of October 18th was "Realizing Cable's Potential" and was Chaired by W. Bowman Cutter of the Cable Television Information Center. This session drew a contrast between what cable is today and what it could be ten or fifteen years from now if its full civic and social potential is achieved. The following speakers participated in this discussion: William F. Mason, Technical Director, The MITRE Corporation; Paul Vischer, Assistant Group Executive, Hughes Aircraft Company; Ted Ledbetter, President, Urban Communications Group; Amos B. Hostetter, President, Continental Cablevision; and Henry Geller, Special Assistant to the Chairman, Federal Communications Commission.

The proceedings of the following two days of this Symposium are contained in MITRE 73-11, Volumes II, III, and IV.

ACKNOWLEDGEMENT

We would like to extend our thanks to the Cable Television Information Center and W. Bowman Cutter, Executive Director, for their help in planning and participating in this Symposium. We would also like to thank the National Cable Television Association and David Foster, President of NCTA, for the support they have given this meeting and for sponsoring the reception held Monday evening, October 18th, 1972, and Lloyd Morrisett, President of the Markle Foundation, who was the General Chairman of this Symposium.

We would also like to express a special note of appreciation to the speakers at this Symposium who are listed in the Agenda which follows.

Charles A. Zraket

Charles A. Zraket
Senior Vice President
The MITRE Corporation

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AGENDA

SYMPOSIUM ON URBAN CABLE TELEVISION

WEDNESDAY, OCTOBER 18TH

General Chairman - Lloyd Morrisett
Program Chairman - W. F. Mason

9:00 - 9:30	WELCOME AND INTRODUCTION Charles A. Zraket, Senior Vice President, The MITRE Corporation W. Bowman Cutter, Executive Director, Cable Television Information Center
9:30 - 12:30	SESSION THEME: SOCIAL AND ECONOMIC CONTEXT Session Chairman - Lloyd Morrisett, President, The Markle Foundation This session will examine the broad implications of changes in the field of communications.

KEYNOTE ADDRESSES

THE FUTURE SOCIAL AND ECONOMIC CONTEXT: IMPLICATIONS FOR CABLE COMMUNICATIONS, Dr. Herman Kahn, Hudson Institute

THE IMPACT OF CABLE COMMUNICATIONS ON THE POLITICAL PROCESS, Dr. Amitai Etzioni, Director, Center for Policy Research, Professor of Sociology, Columbia University.

WEDNESDAY, OCTOBER 18TH (Continued)

THE HISTORICAL ASPECTS OF COMMUNICATIONS: IS CABLE REALLY A CHANGE?, Professor Anthony G. Oettinger, The Aiken Computation Laboratory, Harvard University; Commissioner, Massachusetts CATV Commission

12:30 - 2:30	LUNCH, Holiday Inn
2:30 - 5:30	SESSION THEME: REALIZING CABLE'S POTENTIAL
	Session Chairman, W. Bowman Cutter, Executive Director, Cable Television Information Center
Speakers:	William F. Mason, Technical Director, The MITRE Corporation
	Paul Vischer, Assistant Group Executive, Hughes Aircraft Company
	Ted Ledbetter, President, Urban Communications Group
	Amos B. Hostetter, President, Continental Cablevision
	Henry Geller, Special Assistant to the Chairman, Federal Communications Commission
5:30	Busses to Holiday Inn
6:00 - 8:00	COCKTAILS, HOLIDAY INN, SPONSORED BY THE NATIONAL CABLE TELEVISION ASSOCIATION

THURSDAY, OCTOBER 19TH

SESSION THEME: PROBLEMS AND ISSUES

VISUAL PRESENTATIONS

In the morning and again in the afternoon, two visual presentations were available for viewing (these were shown concurrently with the workshops).

9:30 a.m. and 2:00 p.m.	Discussion of CPB's research efforts in broadband communications by Philip Rubin, Director of Engineering, CPB, followed by a Cable Television Film prepared by the Corporation for Public Broadcasting (17 minutes).
10:30 a.m. and 3:11 p.m.	A one-hour videotape of a simulated franchising game, with participants that include an actual city official, state official, public interest representatives, and a cable operator by the Cable Television Information Center at a recent conference sponsored by them.

* * * *

9:00 - 12:00	MORNING WORKSHOPS
Workshop 1)	ECONOMICS AND FINANCING OF CABLE
Panelists:	Gary Weinberg, Senior Financial Analyst, Cable Television Information Center, Moderator

THURSDAY, OCTOBER 19TH (Continued)

Paul Kagan, Publisher, CABLECAST

John Annicelli, Loeb, Rhoades & Company

Grant A. Wilson, Investment Officer, The John Hancock Mutual Life Insurance Company

Lee Bertman, Member Technical Staff, The MITRE Corporation

Edwin Hooper, LVO Cable

Workshop 2) PUBLIC OWNERSHIP: MYTH AND REALITY - Conference Center

Panelists: Winston Webster, Field Representative, Cable Television Information Center, Moderator

Dr. Otto Hetzel, Professor of Law, Wayne State University; Member, Detroit Cable TV Study; Member, FCC Federal, State and Local Advisory Committee

Jerry Minford, City Manager of San Bruno, California

Richard Loftus, President, Amvideo Corporation

John J. O'Neill, Associate Department Head, The MITRE Corporation

Douglas Jarvis, Metz and Jarvis Associates, Inc.

Workshop 3) PROGRAMMING: COMMUNITY AND LOCAL - Conference Center

Panelists: Ralph Lee Smith, Division Staff, The MITRE Corporation; Author, "The Wired Nation," Moderator

THURSDAY, OCTOBER 19TH (Continued)

	Red Burns, Alternate Media Center
	Henry D. Pearson, Jr., Director of Public Access Channels, TelePrompTer Manhattan Cable TV
	Doyle Dugans, Lessee, Channel 3, Flint Cable TV
	Thea Sklover, Executive Director, Open Channel
	John Gault, Vice President, American Television and Communications Corporation
Workshop 4)	NEW PATTERNS OF MINORITY PARTICIPATION - Conference Center
Panelists:	Charles Tate, Senior Research Staff, Urban Institute, Moderator
	Richard Austin, President, Citizens Cable Corporation, Dayton
	Ed Lloyd, President, West Essex TV Company, Inc.
	Bill Wright, National Coordinator, Black Efforts for Soul in Television
	Tony Calderon, Executive Director, Image Productions, Inc.
	Mel Epstein, Director, Center for Community Economic Development
	Jim Taylor, Watts Communications Bureau
12:00 - 2:00	LUNCH, Holiday Inn

THURSDAY, OCTOBER 19TH (Continued)

2:00 - 5:00 AFTERNOON WORKSHOPS

Workshop 5) PROGRAMMING: COMMERCIAL SERVICES - Conference Center

Panelists:
Robert Peters, Stanford Research Institute, Moderator
Amos B. Hostetter, President, Continental Cablevision
Bobbie Weinberg, Executive Vice President, Good Communications
Alfred Stern, President and Chairman of the Board, TeleVision Communications, Inc.
Frank Drendel, Operating Vice President, Cypress Communication Television Corporation
Dore Schary, President, TheatreVisioN Corporation
Dr. Robert Dunlop, RCA/EIE

Workshop 6) FEDERAL, STATE, AND LOCAL REGULATION OF CABLE - HOW AND WHY

Panelists:
John McGuire, Cable Television Information Center, Moderator
Jack Mayer, Deputy Director, Cable Television Bureau, Federal Communications Commission
Joseph W. Wholey, Chairman, Arlington County, Virginia, County Board of Supervisors; Director of Program Evaluation Studies

THURSDAY, OCTOBER 19TH (Continued)

Paul Wigoda, City Councilman, Commission on Traffic and Public Safety, Chicago

Marc B. Nathanson, Director of Corporate Development, Cypress Communications Corporation

Hyman Goldin, Member, Massachusetts State Cable Commission

Workshop 7)	PROGRAMMING: SOCIAL SERVICES - Conference Center
Panelists:	Carol Paquette, Member Technical Staff, The MITRE Corporation, Moderator
	Thomas G. Freebairn, Coordinator of Television Projects, Deafness Research and Training Institute
	Dr. Maxine Rockoff, Director, Medical Technical Unit, Health Services and Mental Health Administration
	Lita Colligan, Assistant to the Director of Office of Research and Development, Department of Health, Education and Welfare
	Al Seigel, Director, Environmental Factors and Public Utilities, Department of Housing and Urban Development
	Stan Gerendasy, Director of Applications, Cable Television Information Center

THURSDAY, OCTOBER 19TH (Continued)

Workshop 8)	CABLE TECHNOLOGY FOR DECISION-MAKERS - Conference Center
Panelists:	Sid Polk, Subdepartment Head, The MITRE Corporation, Moderator
	Vic Nicholson, Cable Television Information Center
	John Sie, Technical Director, Jerrold Electronics Corporation
	Rex A. Bradley, President, TeleCable Corporation
	Gary L. Christensen, Hogan and Hartson
	Early Monroe, Federal Communications Commission
5:00	Busses to Holiday Inn

* * * *

6:00 - 8:00 COCKTAILS, HOLIDAY INN, SPONSORED BY THE MITRE CORPORATION

FRIDAY, OCTOBER 20TH

9:00 - 12:00	SESSION THEME: CABLE'S FUTURE Session Chairman: William F. Mason, Technical Director, The MITRE Corporation
9:00 - 10:30	INTERACTIVE TELEVISION: A PRESENTATION AND DEMONSTRATION, Kenneth J. Stetten, Department Head, Computer Systems, The MITRE Corporation
10:30 - 10:45	COFFEE BREAK
10:45 - 12:30	BRINGING CABLE INTO THE CITIES, William Gorham, President, The Urban Institute
12:30 - 2:30	LUNCH, Holiday Inn
2:30 - 5:00	SESSSION THEME: GENERAL DISCUSSION AND SUMMARY Session Chairman: Dr. John deMercado, Director of Communications Planning, Canadian Government
Panelists:	Gary Weinberg, Senior Financial Analyst, Cable Television Information Center Winston Webster, Field Representative, Cable Television Information Center Ralph Lee Smith, Division Staff, The MITRE Corporation; Author, "The Wired Nation"

FRIDAY, OCTOBER 20TH (Continued)

Charles Tate, Senior Research Staff, Urban Institute

Robert Peters, Stanford Research Institute

John McGuire, Deputy Director, Cable Television Bureau, Federal Communications Commission

Carol Paquette, Member Technical Staff, The MITRE Corporation

Sid Polk, Subdepartment Head, The MITRE Corporation

5:00 Busses to Holiday Inn

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MORNING, WEDNESDAY, OCTOBER 18, 1972

WELCOME AND INTRODUCTION

Charles A. Zraket
W. Bowman Cutter

SESSION THEME: SOCIAL AND ECONOMIC CONTEXT - Lloyd Morrisett

KEYNOTE ADDRESSES

THE FUTURE SOCIAL AND ECONOMIC CONTEXT: IMPLICATIONS FOR CABLE COMMUNICATIONS - Dr. Herman Kahn

THE IMPACT OF CABLE COMMUNICATIONS ON THE POLITICAL PROCESS - Dr. Amitai Etzioni

THE HISTORICAL ASPECTS OF COMMUNICATIONS: IS CABLE REALLY A CHANGE - Professor Anthony E. Oettinger

MR. ZRAKET: Good morning. I would very much like to welcome you to this Symposium on Urban Cable Systems. I would also like to thank the National Cable Television Association and David Foster, President of NCTA, for the support that they have given this meeting and for sponsoring the social affair this evening. I would like to extend a special note of thanks to the Cable Television Information Center and its Executive Director, W. Bowman Cutter, for associating with us in this venture as well as Lloyd Morrissett, President of the Markle Foundation, who is the General Chairman of this Symposium.

For those of you who are not familiar with MITRE, we are a not-for-profit systems engineering firm. We were formed by MIT in 1958 to conduct scientific and technical work in the public interest. We do not manufacture any equipment nor do we work for private industry. We undertake systems planning and engineering projects primarily for Government Agencies at all levels of government. We have two major operations, one in Bedford, Mass., which does much of our defense work (Air Force), and one here in Washington, which does some defense work and most of the civil systems work in the company, including air and ground transportation systems, law enforcement, energy and environmental control systems, educational technology, health-care delivery systems, and our urban cable and interactive-television systems projects which will be described here at this meeting.

With respect to this meeting, we are all here today because we recognize that the urban situation is a whole new ballgame for cable. Broadband, two-way communications portend revolutionary applications for our educational, governmental, business and commercial, social, civic, and cultural needs. Our report for the Markle Foundation recognizes and reflects this potential and attempts to deal with the economic and social realities of cable in the urban environment. In preparing this report, we extensively interacted with the cable companies and with the various institutions of the city, enough to be convinced that our technical and economic analyses and designs are valid. However, there remain a number of larger, more difficult questions and issues (which I term the "interrelationship" issues) to be addressed involving a very broad range of interests.

We were only able to touch upon these issues in our Markle Foundation report and the purpose of this conference is to address these issues in greater depth. Among these non-technical or interrelationship issues is the need for cable to outgrow its identity as a simple retransmitter of over-the-air TV signals and to become recognized as a broad and flexible communications system delivering services to all segments of our urban structure and lifestyle. Therefore, the method by which cable is introduced into our urban centers becomes of paramount importance. These systems must be able to meet the twin tests of financial viability and social usefulness. Questions regarding the creation and acceptability of new programming services must be answered satisfactorily and new or modified institutions to deliver these services arranged. These as well as questions concerning copyright arrangements, system ownership and operation, minority participation, regulation, franchise conditions, capitalization and fee structures, and technical design must be addressed on an interrelated basis. To this end, large-scale demonstrations and experiments must be designed, conducted and evaluated in order to provide the operational framework necessary for working out these interrelationships and to foster the most efficient and effective use of cable on the urban scene. These efforts will require the support of private industry, cable experts, and government at all levels.

Today we hope that we have convened the right combination of people to address these issues -- the cable companies, representatives of many cities throughout the country, the states and the Federal government, minorities, financiers, people involved in programming, technical experts, etc. The agenda has been designed to take advantage of all of you here by devoting tomorrow to eight workshops which will address each of the questions outlined above.

This morning's session will be started off by Dr. Herman Kahn of the Hudson Institute who will set the context for this Conference by helping us to think about coming changes in our way of living and the implications for cable from these changes.

I don't know how many of you know Herman, but this particular field is not something in which he has been doing much work. About six weeks ago, he agreed to give a talk here and I did not see him again until last night when I asked him, "Do you know what you are going to talk about tomorrow, Herman?" He said, "Yes, this is the nuclear war talk, isn't it?" (laughter) But I know Herman will have something very useful to say to us. (laughter) It is always worthwhile listening to Herman for about two hours - that is the minimum amount of time needed to appreciate what he has to say - but by dint of arm twisting, we have asked him to take somewhat less time than that today. So he is going to try to get it all done in about 50 minutes.

Following Herman, Dr. Amitai Etzioni of Columbia University and Dr. Anthony Oettinger of Harvard University and the Massachusetts CATV Commission will begin to draw out the issues. This afternoon, Bo Cutter will chair a session on the CATV system of the future and list some of the alternative futures. This session will try to indicate what problems must be addressed before we can make the transition from where cable is now to where it can be in the future. As I mentioned earlier, tomorrow will be devoted to workshops that will detail the primary issues brought out this afternoon. Friday, we will for the first time demonstrate MITRE's second-generation interactive television system and hear a presentation by Bill Gorham, President of the Urban Institute, on "Bringing Cable Into the Cities."

Friday afternoon, we will try to put much of what we have discussed during these three days together in such a way that we can go to work on the aspects that each of us are concerned with in our own ways.

Now I would like to introduce Bowman Cutter, who is the Executive Director of the Cable Television Information Center at the Urban Institute. Previously, he was a campaign manager for Adlai Stevenson, Jr. in Mr. Stevenson's senatorial campaign, and then vice-president of Northwest Industries.

MR. CUTTER: Good morning. What CAZ may not have recognized is that Herman Kahn was being serious when he said he was going to talk about nuclear war. That may be the most appropriate topic to talk about with respect to Cable Television.

I want to thank Charles Zraket and the MITRE Corporation for putting so much effort into this Conference and providing these facilities and I would like to thank those who are so generously giving their time in the next three days as participants. Most of all I want to thank you for coming. We look forward to the discussions.

May I, in turn, say a word about the Cable Television Center. We are a non-profit institution, founded by the Markle and Ford Foundations as part of the Urban Institute to provide information and assistance to public officials about Cable Television. We have a professional staff of about twenty men and women. We operate out of Washington, D.C. Most of us will, from time to time, be here over the next three days and we look forward to talking to you.

1972 has been a tumultuous year for Cable and a tumultuous year for us to start. There have been significant regulatory developments. Some of the long-awaited new Cable services have begun to be offered regularly. Others are undergoing significant tests. There have been important changes within the Cable Industry. The financial world has begun to show serious interest in Cable and most important of all, the great urban centers of America have begun seriously to consider how and when to franchise Cable Systems.

Back almost exactly a year ago, when the Markle and Ford Foundations first talked to me, I was worried deep down that we would get all of this money, hire lots of people, prepare to do what we hoped was good and accurate work, and then not have any demands for our services and sit back and twiddle our thumbs. We were wrong. We are currently working with over four hundred (400) cities, and that is obviously only a small slice of the number of municipalities in the country that are worried about Cable Television. Obviously, we, and MITRE hope to be able to help many more but we regard the current demand as the best evidence that public officials recognize the significance and importance of Cable Television. This year then has brought Cable a bit more clearly into perspective but it has also raised significant questions. Questions which we felt ought to be examined by a group like this, and that is the rationale for the Conference.

We hope it pulls together the actors, the questions and the themes of an important and significant year in a way that gives all of us a better sense of what we are about. Once again we are most pleased to have you with us and we look forward to the next three days.

Thank you.

MR. MORRISETT: I guess it is in my hands now. We will shortly turn to our panelists and this morning's discussion.

As I thought about the problems that we were faced with, in this Conference, the practical issues that all of you deal with in Cable, it seemed to me that it was well to think a bit about this in light of perhaps some broader concern and a quotation that has always appealed to me as being a memorable and a useful one. It is Santayana's remark that those who cannot remember the past shall be condemned to repeat it. I think as we consider the practical issues that we are dealing with in this next few days, the operational problems, the ways to get a cable franchise let, to get a Cable system built, we might ask ourselves if we will remember that cities were once uncrowded, and that traffic was once thin, that highways that were poorly planned proved to be liabilities rather than assets to urban development; that the Irish and Chinese and Germans and Jews were once the source of great social unrest as they "sought" to find a place in American Society; that railroading was once a glamour industry; that the radio spectrum was once empty space; that television changed the radio business after almost demolishing it; and if we remember these and other lessons, can we find ways to reconcile the economic, social, political and educational influences that all demand service from cable communications?

In finding ways to proceed into a new era of urban communications, can we understand that there is no final solution but that the years ahead will define further needs that must be served also? Can we meet the practical problems of today and at the same time, build a flexible Cable industry so that it will not become overcrowded?

That will be an asset to Urban Development? That will serve the legitimate demands of today's ethnic and cultural and racial and religious groups and tomorrow's groups too? That will not, like railroading or the dinosaur, fail to adapt. That will be an industry that justly serves the entrepreneur, business man, public official, and average American, particularly the average American, who must eventually pay the bill and who will decide on the worth of what we are doing?

Can we find a flexible enough solution as we build today so that the industry that we are planning and participating in will be a glamour industry, ten, twenty years and thirty years hence?

I think that our panelists this morning are well-chosen to give us some perspectives on these issues to put the practical problems we will be dealing with this afternoon, tomorrow and Friday in context, and in particular, I want to now introduce Herman Kahn, our first speaker. Director of the Hudson Institute, he and his colleagues have conducted a number of studies of the seventies and eighties, from various perspectives, economic, social, urban, political, military. He has just finished a large study for the Post Office on communications in the '70's and '80's, and what we have asked Herman to do today is to address the issues of this Conference, Cable Television, in a similar fashion to the way he as looked at the issues in the Post Office Study. Herman.

DR. KAHN: When I was first asked by CAZ, as he mentioned, to talk on this subject, I was negative for two reasons. To a remarkable degree, if you are trying to give a serious talk, what he called a useful talk on context, you have got to spend most of your time removing a lot of ideas which people have, which ain't so. And the worst of it is that basically, with the exception of my colleagues here, at the table of course, the more educated the people are, the more wrong-headed they tend to be.

I just finished a talk at Harvard recently where I said these ten issues, during the '60's, had the following characteristics. Two out of three Americans understood them perfectly well, and you gave them the poll data and asked them for their comments. They understood it very well. But the more educated you were, the more prestigious the university, the more literate the newspaper and journal, with a very small number of exceptions, the worse they discussed the issues. (laughter)

I will use this term "educated capacity" throughout my morning talk here. The phrase comes from Devlin who used it really for engineers and sociologists. He took the position that there were certain kinds of issues which these people could have dealt with and which they could not deal with because of their training. Now is the concept completely clear? (laughter) This is not really an anti-intellectual talk, but it is going to look like one.

The second thing I am going to do myself a dis-service by hitting a lot of points very lightly, very fast, you know. I am not going to try and make them persuasive. I will take about thirty minutes in doing that and then I want to spend about twenty minutes on things I feel much less sure about. These are the issues of Cable Television themselves.

We do have a number of people at the Institute now, who have looked at some of these issues. None of them would think of himself as a real expert in the field, and I have not even gone all the work that we have done, you know, so I would be less expert than these people in my own audience. Nevertheless, there are issues which come up, which seem to fit into more or less standard frameworks, and I am going to "feed" these issues as if the fact that they arose in the Cable Television area did not make them any different, you know, from whether they are in housing or police, you know, or other areas which I know something about, you see. Now I may be wrong and I will delighted to find out - not completely delighted - (laughter), but not as unhappy as you might think.

I had asked Charley to run off some stuff on the Xerox for us this morning. This was a last minute decision, and do they have the stuff off yet?

MR. ZRAKET: No.

DR. KAHN: I gave you all of thirty minutes. I know I am asking -

MR. ZRAKET: Well, why don't you assume that we don't have it yet, Herman.

DR. KAHN: Okay - I will just go on - right.

Let me start off with some of the issues of the '60's. The most interesting thing that has happened in America in recent years is the creation of a high culture which includes not just the various esthetic people and very rich people at the top but basically a good portion of the middle class, what we call the upper middle class, which is more or less separate from the mass culture. Now to give you some of the differences, I will hand out a chart in a few moments, which I hope indicates a set of issues or attitudes or a set of characteristics of the Middle American which is still quite characteristic of say two out of three people in the country but which are completely uncharacteristic say of the young kid at the prestige university.

Now these are things, like first of all religion, tradition, authority. I believe that of all the developed nations of the world, this country in every kind of a poll or test of attitudes has a higher percentage of the people who believe in God than any country around, you know, who believe in basically - a higher percent of the people - of male adults who believe in fundamental religion.

And if you think of the basic trend of our culture as going secular, you are right and you are wrong. You are right if you are talking about the high culture, but if you look at the actual, say attendance at churches or membership and so on, all of the fundamentalist sects are on the way out. The Baptist, The Pentacostical, Church of Christ, Jehovah Witnesses, these are all on the way out. While all of the - what we call the "transcendental" ethnics, Reformed Jewish, Liberal Catholic, Episcopalian Upper Class, Upper Class Congregationalists, Unitarian, Quaker are on the way down, you see. I use the term "trascendental ethnics" to basically refer to religions which have a concept that at the most there is one God and we worship thee if thee exists - you all know who I am talking about - about two-thirds of the people in the audience. While, in fact, some of you only believe, won't even say that there is at the most one God.

You have a culture clash in this country and it is explicit. It takes some "symbol" like sex education. Most Americans think that you should put sex education in schools or did, by which they meant education against pregnancy, education against venereal disease. When the thing goes into the school system, the Board of Education typically is part of the transcendental ethnics.

They feel a tension in sex as a hang-up - kind of sick, you know, abnormal and they may start teaching technique in orgasm. It turns out the guy does not like it, he wanted the exact opposite. He wanted the hang-ups towards the school. He wanted "a tension sex", you see. Now this is a direct clash. It is interesting to me that most of the expert groups in the United States don't understand the clash or did understand it in the sixties and don't understand it now. I will give you examples of this just to be clear:

Take the Commission of Pornography. They put out a report which said that there is no scientific evidence we could find that pornography did any harm. If you asked what they looked at, they asked well young men raped old girls or old men raped little girls. You know, that is not the issue to the average American. Pornography to him is an issue of tension. He, by the way, is the biggest customer of pornography but he wants to be furtive. You see, he does not want it in the living room and he does not want it in the corner drugstore and he does not want it in the mailbox except in a plain envelope. (laughter) To say that it does not harm is simply to say that it does no harm to change this man's culture, this man's religion, this man's morals, this man's sense of good taste. Now (it sounds like: "They give him improvement, maybe not.") but he does not want it, you know, and he is an adult individual and understands this position.

I will give you another kind of example. Take the attitude toward the Vietnamese War. Your average upper class American is sort of raised to believe that if you do something unpleasant, it must be because you are depraved; otherwise, why would you do it? You know, the Vietnamese War, it is obviously unpleasant, so why do it? The lower middle class American simply reacts and say doing something unpleasant must be because it is important, otherwise why would you do it? He looks at the Vietnamese War It is unpleasant but the President won't pull out. He must have a good reason. He has not explained it, but he must have it, you know, and that is good enough for him, you see.

It is a completely different attitude. Now, if you are asking about the future here, this is what you are going to understand I am going to argue. Now I have handed out a scenario here which is half serious. Well, in fact, all serious, but unfair because it gives you only one and it does not give you any alternatives.

Before I go through this scenario, which is what I wanted to do in the next ten minutes, let me go over these points I just made. Turn to page one of what has been handed out; do you people have a copy of it? All right, I will wait until you get a copy and lét me go on with the briefing. If you want to know what is going to happen in something that is as tensely mixed with urban politics, you know, the average man, as Cable Television, I think you are going to have to understand the political milieu somewhat better maybe than it has been understood.

The biggest thing I think that is going on in America, which started basically in '67 is a counter-reformation. Think of the new upper middle class ideologies, think of the counter-culture, a good deal of the new left, some of the protest groups, the whole hippy movement, the drug culture, as a counter-culture, you know as against the current American culture. This is the way that they think of themselves. And they are trying to reform the culture, to change it. This is a perfectly legitimate enterprise. I wish them nil but still legitimate, you know.

What is going on is a counter-reformation, you see. It goes back to about '67. It was quite clear in the '60 elections, almost unpicked up by many of the professional politicians which is rather interesting. We gave lectures to Congressmen on both sides in '68 and the standard remark we got was a very interesting remark. It told us nothing new, we just forgot. But, normally, politicians don't forget you know; they lose elections and in October '68, just before the elections, 85% of the American People admired Wallace for saying it as it is, for dealing with the issues - admired him. Twenty-two per cent (22%) said that they would vote for him - this turned out to be fourteen per cent (14%) because of the last minute campaign by the Committee of Public Education. Five per cent (5%) thought he would make a good President. Literally, they did not want him for President, that was for sure, you see. Now when people said you wasted your vote when you were voting for Wallace, they knew that it was nonsense. The most influential vote that you could make was a Wallace vote, because it affected both parties strongly.

Eric Hoffer, in discussing this, made a very, very, I think strong comment - there is something maybe sick about a country when you have only Southern Crackers discussing the issues, you see. And, Scannon and Waterberg, in a great book called The Emerging Republican Majority - that is not the great book that is the Phillip's book on the American People - the real majority made the comment, the strongest candidate you can have in America would be a non-southern, non-racist Wallace, you see. Now that was still not understood in the '70 elections, by the literate press. They said that "law and order did not play a role in the elections."

We have Adlai Stevenson's campaign manager here. Senator Stevenson had referred to the people, to the Chicago riots, to the so-called Chicago riots, talked about those stormtroopers in blue. During the campaign, he had an American cop or sheriff in his car all the time, kept hugging him despite the American taboos against homosexuality, referred to those fine people, you know, the great Americans in blue and so on. Why did he do that? Well, let me poll you people here and I have polled a lot of people. Do you think he would change his mind? We have his campaign manager and he might want to comment on this. Does anybody think he would change his mind? Probably but not so much. Anybody think that he is fooling anybody? They are not that dumb. Why is he doing it? Does he think it is pleasant? Very unpleasant for him. His family doesn't like it, his friends don't like it - you know, his supporters don't like it - extremely unpleasant.

Why does he do it? Well, it is called the purge technique in Russia - you know, you understand it. Well, the ordinary voter was saying to Senator Stevenson - look, we like you - you are a great senator, by and large, we agree with you. On one issue, we want you to be instructed, law and order. We are not interested in your opinion on that issue. We want you to pay lip service in public and we want you to vote in a certain way; otherwise, you are still on your own and on all othe issues. In order for you to remember it we want you to publicly humiliate your self. You know, you get the attention of a mule, hit him with a brick. You know, this was the basic comment, this was the Russian - you know, face you know where you get up and confess in public - humiliate yourself, you never forget it, by the way. It is an experience you will always remember.

I have checked through. I don't think there is a single Democratic candidate who won in the '70 elections who did not run on a law and order platform. So, you see, it was an issue for a very good reason. They picked it up, of course. It was an issue which won completely, you see. I mean that is exactly - in that sense - it was not an issue. I think the same thing will happen in '72, but even more so.

Has everybody got a copy of this now?

VARIOUS PARTICIPANTS: No. No.

DR. KAHN: Well, let me just - you can look through these things yourself, but let me just read to you the scenario I want to go through because I really am running out of time.

Victory for Nixon in November by a landslide proportions. I have been making a lot of bets with people before the McGovern candidacy that Nixon would win by something close to a landslide because - unless maybe Kennedy ran for the Democrats, in which case it is very hard to predict what would happen.

When McGovern got nominated, I said at least fifty-five per cent (55%) - that was before the nominations even, you know. Now Senator McGovern understands this by the way. During his campaign against Humphrey, in every speech, he mentioned - almost every speech and it is mentioned in Shriver's speeches too - his father trained for the ministry and he was a minister.

He himself trained for the ministry, he is an Air Force officer, he taught at a square college, he comes from South Dakota. Now, how square can you get? You see, that works against Humphrey, but it does not work against Nixon for various reasons.

The counter-reformation now has picked up an incredible number of people who would ordinarily be for the reformation or on the fence. This is the excess of the reformation - pushed them over. Let me give you a quick example of that and I would like to poll the group here.

Do you remember the two negroes, when the Olympics were held in Mexico, who used the Black Power salute. Nobody did anything to them basically and nobody cared as far as I know. It was the kind of thing, you live and let live, what the hell! If they want to do it, let them do it. The same thing in the Munich Olympics, you know, got them cancelled permanently from competition, you know, kind of a severe punishment. Now I want to get a poll. I want you to be honest. How many people sort of protested, sort of internally, that decision? All right - how many of you felt this sort of thing - good! - just out of curiosity?

All right, about three people. I have asked that at about thirty audiences in the last four months. Twenty-six (26) got overwhelming good - you know, these are middle class audiences. They don't want to be friendly towards us, you know, but middle class conservative. They are angry not at negroes as negroes but at any excesses. They won't take it anymore, you know, just won't take it period. Now you as a group will not emphasize this, you see. Let me ask you another questions, for example. How many people here are in favor of some sort of legalization on marijuana or don't much care? Will you raise a hand?

How many people are dead set against it? All right - a very small minority, something like ninety per cent of the American People are dead set against it.

All right, quit introspecting? You know what I mean. That is lesson number one.

How many people here had the impression for example that the law and order issue was a code word for anti-negro during the late '60's? Will you raise your hand?

As far as I know, it was never used that way by the bigots - particularly Wallace. His basic asset was he did not use code words. You asked him what he thought about negroes and he told you, next question please.

Anybody here have the impression that Wallace hated his attitude towards negroes? Raise your hand? Or anybody went to the place - was confused by his attitude? Today

Wallace is trying to become a non-racist, non-southern Wallace, for the heart - you know - because it takes ten years to change - eight if you have been shot.

All right. Increased self-confidence by the Republicans here - that is a total contempt for the literate media. This showed up in a Nixon speech a couple of days ago; you may remember that. The first time in which he said I am sick and tired of the college professors, the literate businessmen - everybody. You guys just don't know what you are talking about, total contempt for them. They don't understand domestic politics. They don't understand the Vietnamese War. What the hell do they understand? Many new programs and policies, basic reform in domestic programs and policies.

Now second, clear cut creation of Arab-Israel type balance in Vietnam which is clear to all except this group that the South Vietnamese are winning their war. I go around the world and give a talk. I start off by saying the sun rises in the West, and it has always risen in the West - prophecy number one. Prophecy number two, Hitler was a great friend of democracy and the Jews. Prophecy number three, the South Vietnamese are winning their war, you see. The first two are much easier to explain except to the French. It is very interesting, if you read Paris Match. Now, this is not really funny; they very much had the same attitude as everybody else - Paris Match, Figaro, Le Monde - I don't know about Express, maybe - have all had a number of articles explaining the South Vietnamese are winning their war. The only press, the only literate press in the world that has noticed this. No other literate press in the world has noticed this except the London Economist - that's it. You see, that is the kind of remark that is against the literate press, you know - if it goes that way.

Both of these result in the conversion of the high culture, not many, but a few. Very much frustration, isolation of the rest. They withdraw, they pull back. Now Irving Krist had an article recently that he thinks that they are going to dominate the democratic party. That depends on the election. If it is a smashing defeat for this group, the party is going to expel them, you know - going back to trying to be the center - center left - center welfare. If it is a modest defeat, they will probably run it.

U. S. domestic morale is much raised. Right now when I say the U. S. domestic morale, not high culture, then the morale goes down by the "ceiling" implausibility of the nightmare of the '60's. The cities are not going to burn down, the cities are not going to take armed revolt, the chairman mentioned that cities were once uncrowded and traffic was less; that is not true of any big city in America, by the way.

Traffic has been about the same for about one hundred and fifty (150) years. People put this in proportion. Things like dilapidated housing they understand is done quite well. In the last thirty years, by any reasonable estimate has been cut by a factor of two every ten years. The so-called housing crisis is in part a fake. It is a big problem with the cities, don't misunderstand me, but half the problems discussed don't exist. The other half do, you know.

The Japanese are going to spend about a trillion dollars in the next decade to make their island into the first humanistic post-industrial culture. It is going to be a kind of a Japanese garden. It is a fantastic program. It has not attracted much attention yet, though it is dead serious. They are changing tax rates, they are going into deficits and so on. Now there is a manic argument in Japan of GNP versus quality of life. Why is it manic? You can't have the quality of life unless you spend about a trillion dollars, you know, on fixing the place up. It is a lot of money, a trillion dollars. You can't have the trillion dollars unless you have a big GNP. You can't have a big GNP unless you go for GNP. And you can't have a GNP unless you use this market in Japan. It is the only market that they have got in the seventies. Things go together, you know.

I think that that is going to have a lot of publicity very soon. Why? Because they are going to give it the publicity. Self-fulfilling prophecy. And some excitement. People don't understand that GNP and quality of life have a certain tendency to go together. The third world understands this perfectly. It is the upper middle class that don't understand around the world, you see - it is new for that.

Resulting in the standing that there is no necessary conflict between GNP and the so-called higher values - growing admiration for economic miracles in Brazil, Mexico, little "cynic" cultures and so on - all of these places are growing by ten-fifteen per cent (10-15%) a year. Sao Paolo is more dynamic than Tokyo. It sort of doubles every five or six years now - doubles. No amount of publicity, no amount of newspaper garbage can hide that fact from anybody who visits the place, you see.

Now Brazil is not a popular country in most of the world, if you read the newspapers. It is becoming incredibly unpopular with businessmen - as plain people they understand it. Now it is interesting to me how the newspapers in Northern Brazil report on the miracle. It started in '65, went incredibly well for six or seven years. Now, it is firmly established. It has a tempo of which I don't think it is going to stop.

They are having an awful lot of pollution down there. The Minister of Urbanism said send us your pollution - we like it, as do the Chinese - the Chinese who visited - who were going through the United States, looked at the smoking factories and said, Gee, they are great and they explained that they shouldn't say that. By the way, I am not saying that the United States should live with pollution. They have - there are two issues which get ninety-five per cent (95%) support from the American public - down with student violence - absolutely hostile to protests - violent protest - you will be shocked at the hostility towards it and protecting environment.

These are the only two non-controversial issues in America. They don't want the kids doing their thing, you know, if it is violent and they don't want the businessmen dumping the environment, you know. Now why should it - it is a rich country. There is no reason why they should not fix their own environment; but you can't ask poor people, you know, to spend money on environment - rich people - sure. Poor people want to get rich. Now on the other side, I will have this in the scenario, but I want to mention this - there is likely to be an understanding that there has been a kind of a problem in the high culture.

We are doing a study of the future of Europe and we have divided Europe in nine (9) cultural areas. One of them we call the Northwest area - Scandinavia, Atlantic-Germany, Holland, the Flemish part of Belgium, Canada, U. S., Australia and New Zealand. This is the formerly Protestant area of the world - mainly Protestant with Switzerland. With Switzerland, it is the only area of the world, which ever had stable democracy in the last two hundred years - no other area had a stable democracy. It has great high standards of living, in may ways the leader of the world. In the last ten years, the only area of the world which has had a hippy culture - upper middle class drug problems.

The French are just beginning this year to get a drug problem, very small, mostly with French students associated with Americans, or from North Africa, you know. It is the only country which has a problem with the real breakdown of the family. Only area with public pornography, you know, public exhibitionists of sex, these kinds of things. It is not a worldwide movement at all. Everyone of these countries looks like it is going to have troubles in the '70's, with the possible exception of Canada and New Zealand and Australia.

That is Sweden, for example. There is a question which has been asked every year - is it true that taxes are so high in Sweden and the "egalitarian" philosophy so intense that it does not pay to work hard? The number who have said yes to that question has gone from twenty per cent (20%) to something like sixty-five or seventy (65-70). Let me tell you that is a lot of change in the country in ten years.

The younger kids coming out of Swedish high schools today are no longer work-oriented. If they can't get extra money, they don't work, you know, this kind of thing. England is getting the Market. I don't want to go through it, but it is going to shake the place up in all kinds of ways. You know people talk about the cold wind from the Continent, from the West. They may get a cold, they may get pneumonia, you see. What I am saying here is that people read the foreign press. They look at the sucesses, you know, of Japan, the "cynic" culture in Brazil, to some degree, Mexico - in many ways, these countries get very bad presses. Singapore, Hong Kong, Taiwan, South Korea - these all look like they are going pretty well economically and I am not an economic determinist but let me tell you economic success is important - particularly if you are talking about poor people, you see.

While the people have been rejecting the economic criteria in the upper middle class discussions, they are all going to look like they have problems. Now this is not the long run, you know. Maybe in 80 years it will be different, I don't know. All kinds of issues are coming up, you see. I am talking about the '70's for the moment, you see. I am saying that there is going to be a counter-reformation which will pick up a certain number of intellectuals, a certain number of the high culture, not the majority, but enough so that you don't have the uniform front any more that you have had. You see, with the exception of the public interest, for example, I don't know of any magazine which discusses these issues, you know, reasonably in the '60's.

All right. A growing excitement over and probably explosive economic growth in the Pacific Basin. That is the next decade as a whole look like what we call "la troisieme belle époque", without going into it too much, it basically will be an era of world-wide growth, peace, prosperity, trading, interchanges and so on, but explosive in the Pacific Basin, including the United States in the Pacific Basin.

This is a good atmosphere. Now this does not make - this is exactly the opposite by the way when you have high culture density most alienated because the prosperity seems to come for free. Don't worry about it; it is like the first La Belle Epoque of 1901 to 1913, a lot of anarchism, a lot of assassinations, a lot of terrorism, a lot of manic political movements. It was very much in the upper middle class, you see. So I am not saying that is a good era by the definitions of the average middle class individual, you know. He likes it, you see.

The general atmosphere of the thesis of many mountains up to heaven and many roads up each mountain. This is new for western culture. It tends to be fanatic. That is a rejection of the neo-Malthusian position, that we are running out of raw materials, that we are putting ourselves to death and the fixed pie position, what you eat I can't have and what I eat you can't have. You know that makes us "war", you understand. If you really believe the Club of Rome studies, then you have to reject what both Forrester and Meadows do, but many other adherents don't, the idea that we will all get together and share this misery in the spirit of good fellowship, you know. It will never happen in the history of the world by the way, you know. (tape sounds like: "our way of finishing studies by itself.") We cannot find any serious resource issues in the long run. They may exist. I am not saying that they don't. We can't find them, you know.

When I am saying that we can't find them, I am throwing out certain important resource issues which are important to the quality of life of upper middle classes and upper classes but not to the middle class you see or to my own quality of life when I was a kid. When I was a kid, I was very poor, but I had a car when I was fourteen. I used to go to the beach and we had the whole beach to ourselves. I used to go hiking in the High Sierras and if we met another couple on the trail, the day was spoiled. Those values do not survive, you understand. By the way, it is not the population explosion that is the problem, it is wealth. Poor people don't take up much room. Wealthy people do. Furthermore, the wealthier the average guy is, the less well the rich guy lives. How many people have a live-in maid? None of you. Well, one of you - there you ought to be ashamed. (laughter)

Fifty years ago, ninety-nine per cent (99%) of this economic pattern had a live-in maid. Schempeter once made a comment: "One good maid is worth a household of good appliances." (laughter) As the world gets rich, your life is going to become miserable and you deserve it. Don't come to me for sympathy. (laughter)

A general tendency towards revisionist history in which success, as well as failure, is emphasized. This is incredible today. I will give you an example. The U. N. put five per cent (5%) as a goal for the decade development in 1960. Nobody expected to meet that goal; they just did not expect it. It was just one of those fake goals you put up for rhetoric purposes. And if I had been talking in 1960, I would have said you ain't going to meet it. They are kidding themselves and they know it. Well, it was exceeded by ten per cent (10%), five and a half per cent (5-1/2%) we made. Now, that is an unbelievable feat. Anybody here attend the celebration? Raise your hands if you attended the celebration.

You know there was not a celebration. This is not the kind of thing that you can celebrate. We had a wake. What was the wake about? The two-thirds poorest only did four per cent (4%). The decade was always uneven. We did not have a second celebration. This development is more even than any in history and then they had a third problem, they said. The two-thirds poorest had a two per cent (2%) population growth, 2.1 it was. Actually, 3.9 they did, so it was only a 1.8 improvement. We expected the poor to get poorer, do you remember? They got richer. So we had a third reason for celebration, you see.

Today, the goal is six per cent. Nothing is changed. We will meet the six per cent is my guess and in 1980 we will have another wake. Only we won't. It will be celebrated, you see. The whole character of the culture is changing. How many people believe the remark that half, how many people have heard the remark that half of the world goes to bed hungrey at night? Will you raise your hand? How many believe it? Aw, come on, all of you must believe it; otherwise, people would not keep saying it. Well, it ain't true. Sorry, it's not true. Do you feel bad? It does - people get very mad if you say something like that. If you talk about hungry people - people are warm to you. If you talk about - I think the last major famine in the world occurred in '48. My guess is, you know major famine, you know in which millions of people get really hungry up to the point of dying of starvation.

Short of war, it is not likely to happen again on the earth. That is a very optimistic crackpot remark, but it is a more accurate remark than the other one. The thing was an FAO calculation that said if you don't eat as much as the English eat, you are hungry. This definition fits everybody in Japan who eat only twenty-three hundred (2300) calories a day. But they are not hungry. This definition fits everybody in China who eat only twenty-one hundred (2100) calories a day, but every visitor to China agrees that they are incredibly well fed. You know, they were hungry in '69. There was some hunger in '69 in China or in '68, not in '70 - '71. India, nineteen hundred (1900) calories a day - that looks like real hunger, and there is hunger in India. There is no question about it. Poeple die of starvation or malnutrition on the streets of Calcutta. But many rich Indian families take 1900 calories a day, you know. That is not a hunger for them obviously. In other words, many small people in the tropics live on 1900 calories a day because they desire to. You see, hunger is not 1900 calories a day.

Now if you are working in very hard work, you need more, there is no question about it. By the way, there is a protein malnutrition in the world. It is a very serious problem and this is worse than what we used to think it was. It seems that it handicaps you for life. Why is it not fixed? It costs you nothing, just some intelligence in programs. I don't know why it is not fixed. My guess is because of the mis-focus on the hunger problem, you know, in the sheer calories.

This is very typical, by the way. People don't fix important and serious problems because they like to spend their time on unserious but dramatic problems. You see, protein malnutrition does not give the same image, you know, of desperation. Many Americans have protein malnutrition, rich Americans, you know. It is a question of just a choice of food. There are cheap foods available. You know, it is just a question that it is up to the person himself. It is up to the Government to get them.

I have talked with Paul Austin, President of Coca-Cola, about it and I said why don't you guys develop a good-tasting protein drink because Coca-Cola is drunk around the world. He said we did it. I said what are you talking about? I drank it in Hong Kong and I could not get it down. Well, it turns out that it is a soy sauce thing which people who do not love soy sauce don't like, he claims. Anyway, he sent me a case of various things of different cultures. I have not drunk it yet but he claims that he has done it. If he has done it, then the problem is solved. I will bet you that. You know there are lots of ways to solve it, you understand, and it does not take money. You know, it just takes sensible programs.

All right. I believe that we will have a much greater focus on what the problems really are and we will attempt to fix them. What does all of this mean? All right, let us go to the United States. First and foremost, I think there is going to be a return to certain traditional American concepts. One American concept which will only be partial is the idea that you don't try to support worthy causes by putting pressures or requirements on specific areas. You remember when we had the Tidesland Bill and people said let us allocate the revenue from the offshore oil to education? You know it is a worthy cause but education is appropriated by the legislature, the taxes assessed go into the general treasury. You know, it is up to them. You don't try things that way. There are many good theories for not doing it. There are many good reasons for trying it since you have the legislative process.

Now in the European tradition, there is much trying of this sort. There are many areas in Europe where they do things - where they get things out of the legislative process and it works fairly well by the way in many cases. I am not saying that it does not work. I am saying that it does not work well in America and for various reasons. For example, one of the big things in TV is how much will you force the cable people to perform a lot of public services, you know, that they can perform. I believe that there will be a certain tendency, for example, if you want negro programs or black programs - I still use the word negro because it is still true that the average negro prefers the word negro and they dislike the word black. Now, it is also true that middle class negroes and young negroes in Northern cities dislike the word negro. They prefer the word black.

But I speak for the negro everywhere, not, you know, for small groups. And I want to repeat that remark. I once was talking to an all negro group and when one guy gets up and says what makes you think that you can talk to the negroes or for the blacks, and I asked him if you think so much about negroes, why is it that many negro parents in the ghettos dislike the work black? This is less true today in '72 than it was in '70 when this occurred. The guy thought I was crazy. That I did not know what I was talking about. So I explained to him, if you are a negro parent in the ghetto, the thing that is most desperate in your eyes is getting a kid through high school. You figure if he gets through high school, he has made it. If he drops out, it is much more serious than for the white kid because he may go on drugs, he may go in the rackets, so it is a very serious thing. You tend to be paranoiac about this issue. You are very square and you tend to feel that anybody who makes that kid militant increases his chance for dropping you, you know. Now, I don't think that using the word black increases the chance of the kid dropping out, you know, of high school, but I am not about to try to cross this negro parent.

In every culture, the adult that corrupts the young is looked upon with contempt, you know. Socrates had to drink hemlock because they accused him of corrupting the young and in history it turned out that Socrates was right and they were wrong. So, I am not saying that in fact everybody who is accused of corrupting the young in fact corrupt the young. Nevertheless, corrupting the young is a very serious charge. You should not do it lightly, you see. Everytime I have given that talk, one or two parents have gotten up and started giving this guy hell. Now you can't argue with an outraged parent, negro or white, you know. You lose the argument, everytime. Don't try it. I deliberately stretched the argument out and then I made the point to the audience. You have just learned something. I, Herman Kahn, white, jewish if you will, educated, has more empathy with the negro parent in the ghetto than you middle class negroes with black skin. By the way, is that so surprising? How many people here are surprised with the idea that common values, you know, square values, are a greater bond than skin color? Would you raise your hand if you would be surprised?

I mean the racists of that audience that think that having skin color makes them apathetic with people totally different from them in every single way. I was raised in a ghetto by the way, and by the way, it was a Jewish ghetto, it was a tough ghetto, Italian-Negro-Jewish. You know we had gangs, we carried knives. I did not because I was scared of them.

All right. The major impact here I believe is going to be the tough mindedness of these issues. Tough mindedness is not anti-sympathetic. The so-called you know black anti-lash - the anti - what is it called - the backlash against negroes does not exist in this middle-class group. I don't care which poll you ask, how you ask it, who asked it and where it was asked and when it was asked, the data comes out the same. Your middle-class American is still racist. He is less racist today than he was ten years ago, you see. His entire emotions, his entire hostility is building up. This bubbling-over anger is directed against people with briefcases in - you know what I am talking about - okay, then let us go on.

Then, let me give you two polls and then I will try to give you a, well - when polled, which would you cut NASA or Welfare? Overwhelmingly which do you think they would want to cut, the middle class Americans? How many think that they would want to cut NASA? How many of you think that they would want to cut Welfare? Okay, your instinct is right but your answer is wrong. He thinks of Welfare as a "boondoggle" to some degree for negroes, that is he is against it. He thinks of NASA as a "boondoggle" for scientists. Overwhelmingly, he cuts NASA. At least negroes are people, you know. (laughter) You know, it is the kind of "boondoggle" which he much prefers, you see.

We have a new book out. One of our staff members published it. It is by Frank Armbruster. I think it is called The Real Opinions of The American People. You might want to look at it. There is a whole series of things which every upper middle class person says is wrong, you know, like thirty issues. They are wrong like ninety to ten (90 - 10). Let me give you another one for just a quick - well, I don't want to take the time - this will just take a moment - these are not unimportant, by the way. This is going to dominate I think what happens in the next five years for your systems. Let me now try to give you the interactions with Cable TV.

I want to start off with a Marxian concept. Marx said you often make quantitative changes and sometimes the quantitative change makes a qualitative change. For example, take heat out of water. It starts with steam, you see. For a long time, you get colder to colder steam and then all of a sudden you get water, then for a long time, you get cold water and then all of a sudden, you get ice. Now I am not saying that social phenomenon is like that. It is not, but the idea is an interesting one. Over what point does the Cable TV just change from more of the same, you know, quantitatively, qualitatively. I mean quantitatively, at what point does it make a real difference in life? I will argue that for the average American it will be a long time before Cable TV changes anything serious in his life. Basically, he has very little interest in local programming. He does not want to watch the City Council, you know, pontificate. By the way, I would not watch it for a thousand dollars a day, you know. It is incredibly dull. A lot of this stuff that people want to put on Cable TV, you know, they have no interest in it, you see.

On the other hand, a large variety of first-run movies. By the way, the most popular movies in America were Patton, Love Story and The Green Beret. You see, that does not change.

A PARTICIPANT: The Godfather?

DR. KAHN: The Godfather - yes - that is not going to change his culture, you understand, you know, but he has access to this now, you know, he likes it - don't knock it, he likes it. I think it is going to make a big difference to the professionals; the one group which was not mentioned, by the way and that we will be talking about ethnic groups, racial groups and so on - the professionals, people like us. Now in most cultures, people pamper their professionals, you know. The Pony Express is carrying mail for the professionals.

The moguls put on a whole road system and fast ponies for the professionals. Why? Believe it or not, the professionals, you guys are important, but you are not as important as you think you are in some ways and more important in others, you know.

If you can double the output of a topnotch scientist, you see, if I bring a good university library into a small town like Topeka whose life have I changed? Not even the vice president's, the executive, they don't read. A library like that just doubles my output, you see. You know, in all kinds of life, I level professional work, whether it is advertising or engineering or science or sociology, you know. I think it will be enormously affected by this, you know. I was just in my room last night giving examples of what it would mean to me personally. Now this means a fairly large investment, but this small group of people like one or two per cent of the population can afford it, probably because they sometimes have their companies pay for it, partly because of themselves. And if you let the thing rip, I think you will find that this is a major customer, one of the major customers of the esoteric services.

I don't think even the polling makes much difference - I am talking about asking of information on demand, you know that is the big thing. Now there is no reason why you should not sell that to rich people who can pay for it. It is very easy by the way in this kind of a thing to hold up development for decades because of certain kinds of theories, or you want to guard it, you know, instead of charging what the traffic will bear, you know, letting it pay for it as opposed to subsidizing it. I think you could find yourselves in a rather small but important market.

The second place where you get a very big quantitative change, and this has been noticed by everybody, is the limited market. That is particularly so if you have paid TV where you can charge the subscriber for every hour of viewing, you know, a certain kind of thing. If is very easy if you pick up five thousand viewers say, at two dollars per hour, you know, ten thousand bucks. That pays for a cheap production of any esoteric group. I don't care whether it is black power or people interested in 16th century Persian art, you know. By the way, Penguin Books have put out a series of books - 16th century Persian Art, 17th century, 18th century, now if you are going for a mass market that is three pages in a book on Middle East Art, you know if you are looking for quality art, but you can afford this kind of concentration, you see.

And I think you are going to find an enormously healthy impact on the United States here. Now one of the issues that comes up is how much should you encourage these small markets? Take, for example, the so-called ethnic TV. I think the United States should encourage ethnic TV but I am a little leary of it. Why? Very typically, the people who take over this kind of thing are the kind of people who have a very intense interest and have nothing else to do. You know the kinds that I am talking about, religious intense, black power intense, the crackpots. You know these are the ones who care. You know, they put full time at it, they will do the programming, they will raise a little fund and so on. You are not going to find an average person, you know, being interested in putting much time into it and so on.

So when you support these very ethnic things, you are automatically encouraging the extreme, the esoteric, the intense, you know, the people who really care. I don't think that hurts so long as there is a large menu, you know. Let the people pay, that's fine. I happen to think that it was very bad for educational TV. Educational TV is so much of a disgrace because the menu is so small. When the menu is large, a current (word lost) can afford to pay for that. I see no objection to subsidizing it. In fact, I would even subsidize it by not saying that the Cable TV people have to subsidize it but by having the Government subsidize it, so that the Cable TV thing can go along more economically.

One of these I very strongly object to in The MITRE Report was the implicit subsidization toward everything. For example, they want to charge the people who are getting their cable on the poles more than they should to subsidize the people getting their cable underground. The cable underground is for the wealthy; the people on the poles are the poor.

There are some things you are uncertain of here but I think they are going to happen unless stopped by the Government. It seems to me almost certain in the long run that this takes over the telephone system, you know. Now this may be lucky. The telephone system has made a major commitment towards on-main-frame-maintenance, and they can't make it. When they had the recent strike in New York City, I forget like five per cent of the executives did the maintenance and they did like two or three times as good a job as the regular work force. This, by the way, is increasingly coming true. I was talking to people out at Maxim, for example. They had a fourteen month strike in a chemical plant where they reduced the force to about three per cent (3%) and every week, for the first six months, production shot up - executive work force, you see.

This is a big problem in the United States. I am not going to go into details about it and it is not true everywhere in the country. We have not been able to pick, ahead of time, wherever the "club" comes up maintenance. We have looked at areas which needed the family, not the school which is teaching good work habits in the lower income groups. Well, this is being done, neither of us teaching it. The telephone company has maintenance problems within five years later, you see. It takes very responsible people to maintain that kind of a system.

Well, you don't have to have main frame maintenance. You have micro maintenance. You know, pull stuff out, put things back in, or you can change the national character. Well, it is easier to go to micro maintenance and you may soon find the telephone company, you know, in New York City today if you try to call from New York into Westchester County for instance, you don't get through. And the system became a little bit like the Mexico City system. In Mexico, instead of saying hello, they say thank God. (laughter) This problem of service here, you know, may really force the other service even if it's blueplate. You know you get point to point communications, you know, of telephones. I am talking about 2000 cycles, not four million, you know. You will find people using it, you see, and well, I think this is - well, if you allow the telephone company to invest here - one or two things will happen.

The telephone company will either try to suppress it or push it to extremes. You see, they have the capital so they can do it. If you keep them out, it is very hard to make the transfer, you know, on the other hand, the instinct, that they would try a monopoly is, of course, a sound one. Anna Smith once made the sound comment that whenever any two businessmen get together, if nobody else is around, they plot restraint of trade, you know. I mean this is the first instinct of any businessman, you see, worth a damn.

I would suggest in this kind of thing you might want to be clever. There are many ways to do these regulations that you can get the advantage of the capital, the experience, the entrepreneurship, and prevent the monopoly, you know, from being harmful. Monopoly is not always harmful, by the way, because it has enormous resources to be committed, you see.

Let me hit a minor point. This is my - I have three minutes left - let me hit some practical points rather than these minor points because they are really more important.

There is a certain tendency often to, particularly for engineers, to plan too much and again if I was asked to criticize our Chairman's speech, I would say that it was an example of it. Generally speaking, muddling through works a lot better. Now there are reasons for that. Let us assume that you are currently forcing the Cable TV to put a return circuit in right now, which increases their cost by about twenty per cent (20%). Now if that man is earning twenty per cent (20%) interest, a dollar invested today is worth three dollars six years from now. If it is worth thirty per cent (30%) interest to him, a dollar invested today is worth five dollars six years from now. You have not saved him a dime by making him invest now for a demand six years from now. You have lost money. Further you have increased enormously his chance for bankruptcy.

If you look at things like Reston and Columbia, these are successes but the original people get forced out, either by bankruptcy or quick sale, because they can't keep up their cash flow, which is the big issue in any business. That extra twenty per cent (20%) is about the difference - about thirty per cent (30%) between bankruptcy and not bankruptcy, or forced sale, you see. So you have not done something small when you put up that twenty per cent (20%). You did something which is uneconomic from almost any point of view, except - well, from a lot of points of view and it makes it sharply less attractive to people. I will bet you there is not any serious consideration from the business point of view of these points that I have just brought up, when that regulation was passed. you know, that you must put in this extra twenty per cent (20%) and any engineering group will come up with that kind of anticipation.

Now we, for example, used to study American Development projects and we found that every engineer who had to do quick marriages at the end said why could we not have planned this ahead of time? But every time we tried to plan a fighter bomber ahead of time, it failed. And these things are always saved by new engines and new guidance equipment which was not part of the original project; last minute marriages, you see.

The biggest single difficulty I would say of the kinds of study which MITRE, Hudson, Rand do is that they are done by people who are not business-oriented, who don't understand about quick marriages, who have orderly minds, you know, one might say rigid, and enormous desire to anticipate problems which they don't understand. And sacrifice today for those problems. You know that is the biggest single problem I would say that you have here. This is exactly the opposite of what MITRE asked me to talk about, to say. They say don't be premature, don't jump in, look ahead. I am saying that you want to look ahead because once in awhile, you do find something which is very important to anticipate, you know, where you save a lot.

You are interested in saving ten, twenty, thirty percent, that is not worth anything. You are interested in saving "go" and "no go". That is committing yourself to a very bad system which never works. But that almost always "marry", modify, adapt, evolve, you know. It is very hard to make that mistake, you see. So I would say that that is the number one issue.

The second thing I would say is that you want to avoid getting mixed up too much in city politics, ethnic politics. I am not saying here, by the way, that the ethnic groups should not go out and try and get everything they can; they should. It is not advice to the ethnic group. They are entitled to get everything they can get, you see. I am talking about people who want to push Cable TV.

I have been recently looking over the recent Philadelphia Exposition - the bi-centennial exposition of '76. You know, it got killed. They brought in internal city politics - absolutely killed. And you can imagine putting a Centennial for the 200th birthday could have been done and it is typical what we did then, after the thing got killed, we said we are too mature for an exhibition. Instead of admitting frankly that we were just too dumb that we can't get this kind of thing through, you know, we said that we are too mature. Secondly, the ethnic politics, the city politics of the '70's are going to be very different from the late '60's. Listen to any McGovern advocate. He said, let us get those loafers off of relief. He sounds like a John Bircher. Did you hear him on the radio? He has got a sound instinct.

You are not going to have anti-ethnic politics in America. You are going to have what Moynahan called benign neglect, you know, a general concept of let's help wherever you can, the burden of proof is on the man who wants the program. You no longer can blackmail the system because you are dealing with people with heavy guilt feelings because, in fact, people don't have guilt anymore. They don't have guilt. Maybe they should, maybe they should not, but they don't have guilt. There is no argument about it. The people concerned don't have it anymore.

The people with the money, with the charge, this includes the Lindsay Administration now, for example, now Lindsay ran on an anti-busing program in Florida. The Florida people voted seventy-four per cent (74%) against busing, seventy-nine per cent

(79%) against segregation and did not find that contradictory. You see, this was not understood by the way, by the New York Times. You see how many people remember before 1950, people would pay three, four, five per cent for neighbors school. Remember the real estate agent who would try to sell a home, you know - would you raise your hand? Okay. About a third of you. Let me tell you here, when you tried to buy a house before 1960, what was the first thing the real estate agent told you, if you could? Would you raise your hands? Do you have any response from the audience? Neighborhood schools - right? During that fifty year period, people were perfectly willing to bus their kids to a better school. But many Americans are willing to pay five per cent (5%) more on the price of their house to have neighbors' schools. All these Americans were told in the early '60's that they were bigots. By the way, many of them were but they resented you telling them for that reason, you see.

Today, none of them are afraid to tell you that they are against busing whether they are bigots or not, you know, because they know that they have a legitimate reason, which has been true for fifty years, and then becomes untrue suddenly in 1960, you see.

So what I am saying over here is the issue of your, of the various kinds of minority groups, the particulist groups, the local groups getting in, basically the atmosphere is going to be friendly to any reasonable demand, but there are no blank checks anymore. Secondly, the experience with education TV has been a kind of a disaster. I have watched education TV, the negro programs. All I can say is that the current American program with regard to the negroes in the United States is a genocide. Now, many people here know what genocide is? It is the complete extermination of a race. It is not being pushed around, it is not being kicked in the teeth, it is not being discriminated against, it is not even being held down in slavery. It is complete extermination of a race. Does anybody here think that is U. S. policy against negroes in the United States? Would you raise your hands? You do think so? You have got a problem. Really, you are kind of sick.

Genocide is a big ugly word. And I have heard that word genocide used over and over and over again on negro TV. You can't get away with it, not if you are publicly supported. You can get away with it by the way on neighborhood TV if you don't make it the center of the program, you know.

I think that this is going to be big. I think one of the places where it may make a real quantitative change is exactly in this kind of communication with minority groups, you know, bring them into the system, if we allow some kind of new creative programs, we never had before. My own guess is that you can't do it, but if I had a guess, I would say this kind of TV will not be successful in removing the alienation or in education or in changing the minority groups. You know, it is not going to have much impact on them, that is my guess. If it can be done, it would be one of the greatest things you could do for this country? Right? Obviously you want to take chances. You want to be open, supported, push it but not if it is totally unreasonable. You understand the distinction between benign and neglect? The word benign is in there. Neglect says you do it on your own to a greater degree, and you don't push crazy things, you see.

One other example where you can make a very big difference just to give you a sense and then we will quit.

Take the police. You remember when I talked about the Northwest Zone of Europe? One of the big differences between the Northwest zone of Europe and the rest of Europe is that the Northwest zone has typically one-third of one per cent of its population in the police. Most of the rest of Europe has one per cent. Paris has two per cent. Now sometimes people ask me what is the good of hiring police? Every country in the developed world is safe at night, did you know that? Except the United States cities? I would just as soon walk around Paris, anyplace, the Arab Quarter, at say three o'clock in the morning. People might think that it is curious but they would not think that it is unsafe. So if people tell me what good do the police do, I will tell you. Paris is a great place to visit and a great place to live, and without the police, it would not be, you know. It takes two per cent of the population to keep that place down, you see.

In the United States, we tend to automate these things. Now television does not work by itself because the kids break it up and it does not work anyway. The police don't work it by themselves and you have got to hire a lot of them. New York City still has one third of one per cent of its population as if it was London, and it is kidding itself. It thinks it is London and it is much closer to Paris, you see.

A very quick look of this and talking to Charley Zraket has convinced me, has persuaded me that it is very likely this kind of a thing can solve the elevator problem, the doorway problem, the street problem, the subway problem. By the way, in New York City, we put one policeman in every subway, one policeman in every station and the violence has dissipated in the subways, so we very intelligently took them away. (laughter)

The TV camera obviously helps here, you see. I have taken up my time. Let me quit. I was just trying to make the comment that there is a very good chance that the fashionable uses of TV that we are talking about here, cable, are non-starters. There is an equally good chance that things can be about as big as people think, think it is with these non-fashionable uses, the professional you know, the police, and maybe a new kind of creative TV which is more likely to be religious, that brings in the negro groups, Black Power, you know. A model of the Ching becomes kind of a common issue. Mohammed Ali, the Black Muslems become a combination. That is religion, you know, but I will bet you that it is more likely square religion than not, you know, and it has a big impact, you know, on these areas. Now let me terminate at this point. I did take my full sixty minutes. (applause)

MR. CUTTER: One of the questions that you always face when organizing a panel is whether or not you can have questions immediately following a speech or let all the speakers have enough time so that you will be sure to get through in the morning. I think that in the case, this morning, there is no danger of people forgetting their disagreements with Herman (laughter) so I think that the best way to go ahead is to let each speaker finish and then we will treat the discussion as a general panel discussion with the audience at the conclusion of the third speaker.

By the way, Tony Brown, who was to be with us this morning, will not be because he is on emergency assignment in New York. So after we hear from Professor Etzioni and Professor Oettinger, we will have time for questions and discussions with our speakers.

Our next speaker is Amitai Etzioni who is Professor of Sociology at Columbia University and Director of The Center for Policy Research. He is currently, among other things, in charge of the National Science Foundation funded project on Cable Television as a townhall tool.* He will be talking to us this morning about the impact of Cable communications of a political process. Amitai.

DR. ETZIONI: What I am going to do first is discuss some specific uses of Cable Television based in part on our studies and then examine the use of Cable Television as an electronic townhall, as an instrument of the kind described in the MITRE Report, which would allow a large number of citizens to dialogue with each other and with their leaders, and make up their mind collectively. I would like to take a few minutes to establish the areas where we see the need for such a system. I will then describe some of the specific attributes the system would have to have if it were to fulfill this townhall function.

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* Reference is made to Grant No. GI29940. For additional report, see: Eugene Leonard, Amitai Etzioni, Harvey Hornstein, Peter Abrams, Thomas Stephens, and Noel Tichy, "Minerva: A Participatory Technology Study." A copy of the paper is available from the Center for Policy Research.

Most of us would agree that the state of the country demands that we develop more opportunities for greater participation. I was looking for a somewhat pointed way of making this point, because it has been made often before, and it occurred to me that one way of making it is to suggest that Senator McGovern is going to come in third. What I mean by that is that there is going to be a larger group of people who are not going to vote than the people who are going to vote for McGovern. I would estimate them to be roughly of the order of thirty-eight percent (38%), maybe as high as forty (40).

The exact percentage is not the point. The point is that there is a very large segment of the population which in one way or another, to one degree or another, and for one reason or another, are alienated. And as I see it, this is not part of a crisis credibility in the sense that it is usually understood, i.e., that the people are disbelieving the President or other political leaders, but rather that they question the legitimacy of the total institutions and purpose of the country.

The scope of this crisis is not easy to determine. However, we can suggest that it is "middle range." Alienation is not the dominant spirit of the country. The country is not coming apart, is not "sick." There is still strength in the institutional fabric which is the basic foundation of the country. And yet, it is equally misleading to imply, as some have, that because cities are no longer burning and many students are back studying their books, there is no crisis at all. The crisis does exist and at middle level.

Just to put a figure on this, if you look for instance at the Harris polls which ask a battery of questions to measure alienation, questions such as, do you often feel that the "rich get richer and the poor get poorer", that you "feel left out of things" around you, that what you think "doesn't count much", that the "people running the country don't care what happens to people like you", etc., the responses indicate that between twenty and seventy percent of American - about four out of ten feel alienated.

Now, needless to say, the sources of alienation are many. It would be unreasonable to assume that any one development, especially of a technological nature, such as our electronic townhall, could resolve that problem. But for one particular facet of the problem, it could make a significant contribution. It could help lessen the feelings that citizens have of being left out and not consulted, of not participating, not "consentuated", of not having had a chance to express their views.

It has been suggested that most citizens really don't want to participate, that what they want is to have their beer and watch Bonanza, and that they are not alienated but indifferent.

Now we have some data on this question. First of all, it is true that some citizens would rather not participate in political or public affairs or meetings. Most, though, want both to sip beer and watch their Bonanza, and want to know that if they wish they can switch their dial, to join a townhall meeting and express their views about something which bothers them. It is fairly important to them, as they watch their Bonanza, to have the sense that if something really irritates them to the point that they will want to become politically active, the tool to do so will be available. The fact that often this is not the case today, that as our citizens watch their Bonanza, they feel that this is the only thing they can reach, is one of the reasons why so many of them are so deeply disaffected.

It is not only in national issues that we find citizens who wish to participate. For instance, questions such as the school bond, or how many floors a building in San Francisco should have, or anti-crime measures in the neighborhood, do bring out a large proportion of citizens. The citizens are *segmentally* apathetic and *segmentally* active. They are not either apathetic or active.

They come out in large numbers when we provide them with genuine opportunities for participation. It is not enough to ask people's opinion and then to disregard it. It is impossible to use the tool of opinion polling as a manipulative device, because people are not that stupid.[*]

People are going to participate when they know that their participation will make a difference and when they feel that if they bother to leave their Bonanza and come to the townhall meeting, the resolution which will pass will have a *consequence*. They will participate when there is a discussion and following that a vote, a vote which is binding. Consider issues such as, should there be a new bond for your school, should cars not be allowed to pass through the center of your town, should a new highway be built right smack through the town, should black people be forbidden from entering your neighborhood to protect you from crime? When these issues are brought before a neighborhood, a very high proportion, forty, fifty, sixty and higher percent of the people will come to their townhall meeting, will want to speak, will want to vote and will want to be informed about the results. I will, of course, not deny that where there is an unwillingness to share the decision-making in a genuine manner, the system can be used to have decisions made ahead of time and then let the children "ventilate" themselves and then make them buy the decisions which have been pre-made. But this only adds to the alienation of the community.

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[*] For more on this, see: Amitai Etzioni, *The Active Society* (New York: Free Press 1968), Chapter 21.

Now what could technology provide for electronic townhall meetings, for large numbers of people to meet without their leaving their home? Let me talk first of the questions of cost. Basically, the costs are not high and could be completely piggybacked on instant shopping. Now let me explain that. In my judgment, one of the uses of a two-way television system will be a kind of updated mail catalogue. I envision it basically like this -- some kinds of products people are willing to buy without examining and touching, they are satisfied to only see, the way they will be encouraged to buy, without touching, a turkey that is advertised through a two-page newspaper ad saying the special today is a turkey at six dollars twenty nine. Now if you have a TV channel in which the major department stores and supermarkets of the area will display some of the wares, and housekeepers could touch a button on the TV set -- "send that and bill me" -- and if there is a good delivery system where housekeepers know reliably that the products will arrive by 2:30 if they pushed the button between 9:00 and 10:00, then I believe this can account for about fifteen to twenty-five percent of the shopping, depending on the traffic conditions and the weather. (The worse these are, the more shopping will be done the TV way.)

I am somewhat unfortunate in my decision that the first study of this system may be done in Orlando, Florida. I would rather it be done in Buffalo, in the winter. In all seriousness, it makes a great difference if there is six feet of snow, or if it is one hundred twenty degrees and humid or if it is seventy degrees and breezy. These determine, to a great extent, to what degree people are willing to go out of their homes, and to what degree they will shop via the Cable. In even slightly unfavorable weather conditions, given a reliable delivery system, with a small charge for the delivery and a small charge for the Cable operators, I believe Cable shopping will be popular.

Actually, if Cable shopping is combined with a system now being used, these small charges would be reduced even further. In many supermarkets, you don't have to check out the product at the counter because the product is pre-coded, and as the computer signal comes in, the turkey and all the other items ordered by the consumer get packaged, and the bill totalled up and readied. The cost to the supermarket is something like thirty percent, because the counter, I understand, is a major bottleneck for the flow of products out of the department store or supermarket. So by cutting costs here, and this can be done, the delivery charges and the CATV charges could be easily absorbed.

Now fortunately, from my viewpoint, the technological elements required for instant shopping use are the same elements that I need for my electronic townhall meeting and so we don't need any new wires or new computers or any new gadgets to provide practically all the elements we need for the electronic townhall.

You can, therefore, see that without imposing an undue burden on the cable corporations, we could hope to piggyback this public usage, on an instant shipping system. (Now, by the way, I must make one digression. I would not say the same thing for interactive technology for educational systems because in my judgment, the cassettes are going to cut into that and I don't believe Cable Television is very well suited for interactive purposes. I think we should not confuse two-way with interactive, but this could be discussed at length, and I want to put it aside to go back to my main point.)

What I want to do next is to read off seven attributes of the Cable system. Each one of them can be cut either to make the townhall very difficult, or to make the townhall rather practical and feasible. Some of them are very obvious, and I recognize some of the faces in the audience as people who have thought about these issues for many years, and have written about them, and I am somewhat embarrassed to sit here and tell you about these things. But, I guess, you know that is what I am supposed to do, so with your forgiveness I will read off my list.

The most obvious one is the question of one-way as against two-way. I understand that if the Cable is laid first one-way and then you try later to lay the second way, it costs twice as much. If you right away lay it, two-way, the additional cost is not as substantial.

The electronic townhall depends on people having many opportunities for rapid feedback. Obviously, neither the townhall nor instant shopping will work unless you can have a rapid feedback. This would be impossible if the telephone was used, because the first thing you get with a telephone is an overload of the system, and then it's all jammed up.

Let's imagine the townhall in more concrete terms. Basically, you envision it beginning with the agenda. You can envision the Monday night meeting being opened, you see on your tally the eight subjects on the agenda, and the first thing the chairman says is, all right, let's take a vote on which subject should be discussed first -- if you can get your vote in in thirty seconds, your vote will help decide what should be discussed first. This first act already establishes a sense of participation very different than what you would feel if you were presented with a fixed agenda.

After a period of discussion, say half an hour, you might want to say "should we close the debate"; "do we have enough discussion?" and you could get a rapid tally on this. After another time period, say half an hour, you may want to ask for motions from the floor, break the motions into sub-motions, and allow each to be voted up or down, the way it's done at a real good townhall meeting. Without the rapid tally provided in the electronic set-up, you are forced in effect to limit the voting only to the issue of voting up or down the resolution.

Because there is no two-way mass system at this moment -- we had to simulate some of the feedback, and the moment we had to simulate the feedback through telephones or by use of post cards or runners, we were able to have, let us say, one tally every two hours and this means that you have to leave the tally for the conclusion.* The closing vote, "now that all is said and done, do you accept the motion or don't you?" does not give a sufficient sense of participation. There are many fewer opportunities for participation here than in a genuine townhall meeting. A rapid, "real time" tally would, however, allow you to provide a genuine sense of participation.

Even under the relatively unattractive conditions of simulation, we found that people prefer the electronic kind of townhall meeting to a real one, because they don't have to get babysitters, because both husband and wife can participate and because home is safer than the street. About 52 percent said that the electronic one was better than the real one and only about 31 percent said that they preferred the large meeting. (17 percent had no preference.)

A second relevant attribute is the scope of public access. Frankly -- and if I gained any popularity with you I am going to give it up now -- I favor that the franchise be kept by the users. I am, in principle, not in favor, now, of any private franchising at all. I can envision a BBC kind of system or the kind of system that the city of Palo Alto, California has, and some other townships -- they kept the Cable as a public facility, like the public utilities. But I also must recognize that that is not a very American idea and it is not spreading very rapidly so -- having waved my flag -- let me say what I would consider a more realistic system, one that they are approximating in Manhattan, and that is that the franchise to private commercial firms includes a requirement of setting aside a certain amount of channels for public purposes. What proportion, whether twenty percent or thirty percent can, of course, be negotiated.

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*This part of the study was carried out by Robert Zussman and Nancy Castleman of the Center for Policy Research. Copies of their report are available from the Center.

There has been one question which has been often disregarded in this context in the past. We have already argued it, I must say, when the City of New York lent out those franchises, and I see no reason to change my mind. We argued that if you just allot channels to public access but allot no resources for the public use of the channels, you are inviting an unproductive experiment. If you have a public access channel, without production facilities, and without production guidance, the quality of the originating "programs" are -- there are exceptions, I am quite aware of them -- by and large, in the majority of cases, so agonizing that the people just can't take it. So that even if they do turn on the channel "C", the camera is cutting off the head of everybody who speaks and is on the wrong person, anyhow, the tape is often unedited, and the result is so devasting, that it takes a Chinese peasant, who could come to the theater and sit there for eight hours, to be able to take it. When you have polished stuff like Bonanza, you can predict which program will have more viewers. Without setting aside some help, some minimal help in program production, editing, etc., for the public access channels, I don't believe that these "programs" will get off the ground.

Next comes the question of the regulations concerning origination and that is a rather complex subject which maybe we shouldn't go into because I am anxious to move on to the next one. Obviously the FCC regulations and all the state and municipal regulations affecting local origination very much determine the degree to which you can have local townhalls and the degree to which you are flooded by carrying in signals from out of town. I see great difficulties in resisting the temptation to carry on the air programs, in addition to many local entertaining programs from other townships to fill up the rest of the channel capacity. People used to say, if you are going to have 40 channels with junk, there is going to be demand on the forty-first channel for Shakespeare. However, if you study the example of the classical music radio stations, you see that they cannot be protected on this assumption -- just because you have a lot of channels, you are going to get a split market for small audiences. Something will have to happen to secure channels for usages which have small audiences. The market will not automatically, in my judgment, take care of it.

Now to the point which is of greatest interest to my particular group and to our particular study. That concerns what we call the rules of access and I am going to dwell on this for a moment because it is, in my judgment, extremely consequential. It is probably the least well covered point from those that I raised.

Let us imagine for a moment a town in which all five thousand homes are wired with two-way cable and the town has some social cohesion and people want to discuss issues. And on Monday night we are discussing, say should we close the plant which pollutes our waters even if it means that five hundred people will be out of jobs, or should we let them pollute happily ever after or what could we do? This is a subject which arouses many people to turn on their sets and participate.

Well, rule of access is the condition under which you can get the floor. This is a very important issue, in any townhall meeting, or kibbutz assembly, or any other such meeting. In live natural groupings, there are carefully worked out sets of social rules which determine who gets the floor but fortunately for the townhall, these same rules don't have to apply. So, for instance, in a typical natural rule, the powerful will get access to floor time. Or, the chairperson will recognize that unless he or she gives the black minority the floor or, the labor leaders, or some other such party, he will never get the resolution across.

The chairperson provides rules which in effect provide access in approximate representation of how many people in the audience are behind their spokesman, and how great is his "noisemaking" capacity or troublemaking capacity, or if he will introduce a new idea. The chairperson also sprinkles in a few others, you know, esoteric and eccentric individuals, to provide for the democratic effect. That is roughly the way most large meetings are run.

The issue here is that one you are meeting on the wire, you cannot leave the rules implicit. You have to face them head-on because the electronics permit all the individual voices to flow to the central point or points and somebody there has to sit and grant the floor by moving a switch.

And so we ask oursleves what rules of access could one use. I will read some of them off to you and I suggest that the decision that you make on these is probably the most consequential in terms of how this thing is going to get off the ground than any of the other attributes we discussed so far.

One rule would be random access, first called, first served. It looks on the face of it like the most democratic one, no preference whatsoever. It is also the one that is of the soapbox variety -- anybody lines up, anybody gets the floor. On the face of it, it looks very good. In effect, it is one of the most unproductive methods from whatever way you look at it.

If you allow me to digress for a moment, I would like to read to you those values against which we measure these things because not all the rules of access work equally well for all the purposes you may have in mind. The values against which we assess the rules are first, the amount of tension and conflict they will generate. Again, the idea would be that while we want things openly brought out in the meeting, if the level of tension escalates beyond a certain point, the meeting is going to explode rather than reach a resolution, so you must worry about the tension and conflict level.

Second, we assess the quality of discussion: to what extent can new ideas reach the floor and new alternatives make their way into the discussion? Third, the audience involvement. The rule I just mentioned tends to alienate the audience because people repeat themselves very often in random access. Also, many people who get the floor will be people who cannot articulate and don't speak for anybody but themselves, which tends to drive the audience away. In a real townhall, the audience will tend to get restless, and in this way, communicate to the speaker where he stands with them. In an electronic townhall, that doesn't work and again the explicit rule will have to make up for the natural forces which cannot be captured there exactly. Finally we must consider the sense of legislation. Certain rules may be very effective but people may not buy them because they feel that they are slanted or biased in one way or the other.

Now to go back to the rules themselves. I mentioned random access. It is simple and economical but is particularly deficient on two counts. One I mentioned is audience involvement, sustaining interest and commitment, and the other is inproductivity. The groups working under this rule don't do much business. They go in circles and it is very difficult to move ahead. In relatively small groups, given very long slices of time, you know a group of six having the whole night, they can talk themselves out that way and then still reach some kind of productive resolution and for them, random access can be an exercise in the so-called Navajo democracy. But anything bigger than that number and anything more complicated than that runs into serious problems.

The second rule of access is popularity. Once people have a chance to speak, you could very easily get a reading back from the audience as to who should be given more time. This is quite undemocratic, even if you say that the amount of time allowed the people is going to be determined by the participants, because this particular rule will force what is known as a demogogic system -- the people who will carry or will get ever larger chunks of time, will be awarded this time largely because they can speak well or because they can arouse the audience, and we suggest that this particular rule again has some ramifications we very clearly recognize from other townhall meetings.

The rule that gets a little closer to a workable system but tends to be very establishmentarian is representative access. In one of our runs, again not having the mass two-way system, we are using the telephone for a pyramid and it works like this.* Groups of ten each get a telephone conference circuit which allows them to dialogue for one hour about the issue and then each group of ten elects a representative for the next level, and then those groups of ten dialogue and they go one more level. So we have a three level system. You who are mathematically inclined can see that the whole country can be covered in six levels and so it is a very economical system.

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*The first part of this study is conducted by Kenneth Laudon and Sara Lipson of the Center for Policy Research.

The dialogue in groups of ten - we have one right now for several hundred groups - is surprisingly effective. People are not at all bothered by the fact that they cannot see each other. We even run groups without a chairman and the dialogue is practically the same, as if you were sitting in the same room.[*] People use a kind of pause of their voices and things like this to regulate the flow.

This particular system of levels comes closest to what we consider a traditional American democracy, in which not everybody has access to "total audience", but in which smaller groups who coalesce and reach a joint position send somebody to the next level to represent them. Then these representatives work among each other to choose representatives to go to the next level. This system is most productive probably because it allows a lot of work to get done, makes it easy to come to resolutions, offers the opportunity to voice new ideas, and minority positions are all relatively well taken care of.

I don't want to take more time to discuss other rules. My main point is that we are still studying them and we are still trying to discover other ones. The main point I want to stress is that we have to worry, as we must set up those systems, and establish the rules. Just leaving them open or at random access could be one of the most important reasons for undoing the system.

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[*] A part of the project was run by Richard Remp.

I would like, at this point to describe the best rule which came up so far, and that is a mixed one. It starts as a representative rule, moves into random access and moves back into a representative pattern. Thus, at the beginning, it permits a quick clarification of the alternative positions, then opens up to allow a greater sense of participation, and then leads again towards some kind of firm closing. This rule works particularly well if there is a moderator in the middle period who can time and summarize the discussions to help it move along and discard people who simply repeat themselves or get lost on a tangent. Now this is in no way a kind of final finding, but it is where we are at the moment.

Now let me go back to my list of those decisions that we have to make to insure sensible use of public systems for townhall purposes. After rules of access, we must deal with the question of saturation. From our viewpoint, so far, this has been by far the most difficult problem in using the cable system aside from the fact, of course, that we have not yet a two-way system. For it is the fact that at the moment there are practically no saturated areas. For instance, even if we use several high-rise buildings in the city, only every other apartment, only about 30-60% of the people in those buildings subscribe to cable. If this is the case, what does it mean to make a decision for the building if part of the people in the building don't have the cable, and thus don't participate in the decision-making?

The same thing happens if you deal on the level of the township. If only half the people subscribe, sixty percent, forty percent, the use for these purposes becomes almost impractical. On the other hand, it is unreasonable to assume, at least for the future, that except in very special areas, what we call the ecological sectors where there is great motivation for everybody to get the service, everybody will subscribe. And, therefore, the alternative which has been suggested is that the basic service be available to everybody and the charge would be made for all additional services; this is very attractive from our viewpoint.

Last, there is the matter of privacy. And again I know that this is not going to make me very popular, but I think it is a matter to which not enough attention is paid. You can buy now, in some of our towns for a small fee, the detailed information listing what programs each home is watching. This is not just statistical information, let us say eighty percent of the people watch Bonanza and only two percent watch Billy Graham. For you can get a list, a computer print-out of what each individual family watches. This is very attractive for some commercial purposes. If you want to run a five-minute advertisement for Rolls-Royce and you could get for a small fee a print-out of who watched the ad to its end, you will know to what homes to go to sell it. The same holds for other expensive products.

It also means that in some of our towns, people might be under considerable public pressure if they watched the "wrong" television program. I would not like to see circulated the list of who watched "Oh Calcutta" when President Nixon was on the other channel. I believe that what has been called an Electronic Bill of Rights would forbid the violation of the privacy of the person in the case of selling the information detailing what an individual watched.

I am choosing my words carefully. I think statistical information should be available -- it has many commercial and public usages. But to know what an individual watched and without his consent - that is part of his private life and we should not invade his bedroom or his living room with this electronic device.

Well, I don't believe that we are going to have a full fledged system of the kind I depicted, next year. I think it is a long way off in effect. The remaining problems are quite serious. The total costs of "wiring" the country are enormous. The cassette industry, I think, is about to cut in on some of the potential services. Some of these other services are extremely "fancy" in my judgment and cannot be provided unless there is a frame grabber in every set. There are fifty million sets out there without a frame grabber and I think it will be a long way before they all have it. Also, the problem in time sharing is extremely serious.

Attempts to build systems with time sharing have run into serious technical problems. Some of these might be resolved in the near future. MITRE developments might well do it. Some other problems might be resolved a little later. Some of them may be resolved by 1980 and so I would not advise anybody to go home and expect, you know, a major city to be wired back to back two-ways within the next five or ten years. Therefore, electronic townhall meetings are not in the immediate future for most places.

The only reason we do discuss now those attributes -- it does make sense in my judgment -- is precisely because we are going to build this layer upon layer and each layer includes decisions which are going to make it relatively easier or relatively more difficult in the next step to reserve the opportunity for public use. I thought it might be of some interest to have in front of us the list of the attributes the system would have. It's a fairly long list in order for it to be used in that way.

But on leaving here -- I am closing on a relatively cautious note -- I should also say that it seems to me that you can demonstrate that if the system is developed in this direction, and made available to a community we will find a willingness to genuinely turn to the community decisions which affect its life. Electronic townhall meetings could make a major contribution to bring the citizens and government together again and while it is true that there are important segments of the population who couldn't care less, it is true that they have other problems. The question of taking a large segment of the population and giving it a genuine opportunity to participate, I think, is an important element of what the solution of our future problems will have to entail. Thank you.

MR. CUTTER: Our third speaker this morning is Professor Anthony G. Oettinger who is Professor of Applied Mathematics at Harvard, Chairman of Computer Science and Engineering Board of the National Academy of Sciences, and a Commissioner of Cable Antenna Television in Massachusetts. He has also written a book which is quite relevant to some of our considerations, called Run Computer Run. Professor Oettinger is going to speak to us on the historical aspects of communications -- is cable really a change?

PROF. OETTINGER: I was going to start by saying that my heart and my "suspect brief-case" are with Etzioni and my mind is with Kahn, but...

DR. KAHN: Me, too. (laughter)

PROF. OETTINGER: Etzioni's concluding realistic remarks took some of the wind out of that sail, but the point remains in order to make some sense out of the present and the future, it is useful to take a very pragmatic, short view but not to abandon a more realistic long view. Really it is the blending, the judicious blending of these two that I think of as a critical issue. Historically, the odds are all towards the pragmatic. Most of the major technological innovations that are of significance whether it was Watt's steam engine or electric power or books, came about in one very simple way which was to replace or compete with existing technology in existing markets. Electric power started out as a way to get rid of gas lights, heating with gas lights, in the lighting market, period. Printing is more interesting in this respect because there are some interesting parallels with Cable.

We think of printing today as a mass technology but it didn't start that way. The inherent capacity for cheap mass production was not exploited in mid-15th century. You saw editions of two hundred copies. That was common. But the printing of more than a thousand copies was a very rare event and the struggle to convert potentiality into actuality that we see with Cable faced a kind of "circularity" in striking a parallel to the kind of thing that we see in Cable where the technology doesn't develop without the markets and the markets that aren't "viable" without the technology in place. Capital for stocks of paper, metal and "finished books" was hard to raise. The early printers-publishers were not idealists one bit. They wanted to make a profit. And they looked for profitable returns as their first order of business and found that they could rely on a steady sale only of established works like the Bible, some grammar books, prayer books and so on. The bulk of the works that were printed in the first centry of printing were the old works that were familiar to the region where the printer was in business, you know, the same thing as Bonanza on TV.

The only guaranteed demand came from what we call now the learned profession and even that was narrow. There was a fellow named Aldus Manutius who was the first to produce books in large quantities at relatively low prices and, in 1515, he was compelled to reduce the price of his stock of Greek books in order to sell them at all. A visible demand for Latin but none for Greek. The early books were big and unwieldy and slavish imitations of manuscript typography and format. And this may also have discouraged buyers. You couldn't very easily carry around one of the early printed books. The only way people knew how to make books was to make them like manuscripts and they were big. (laughter) It was not until the development of small, compact type in the early 16th century that books of handy size began to be printed. It took a hundred years.

Now if you believe in accelerating rates of development and so forth, then turn a hundred years into thirty years plus whatever, but the inertias that exasperate some of us and gladden others are not a new phenomenon.

And indeed it is quite uncertain from historical records whether technology was even the governing factor in the development of printing. The earliest printers very likely did not perceive the opportunities which lay in printing in the vernacular and it is even questionable as to whether those opportunities existed, because a public which was able to read developed fairly quickly only a hundred years or so after the development of printing and by the 16th century, you begin to see a sharp increase in the consumption of books in the vernacular. And we can infer from that a public capable of reading books in the vernacular didn't exist before.

To draw a parallel, some of the earlier speakers raised the question about the quality of half-inch video and so on. Much of the same to-do over printing and writing literacy can be found in the historical records. I think one of the big differences between print technology and video technology today is that our public investment in literacy in the print technology, is by now enormous. And certainly in the Western countries, it is an axiom that one hundred percent literacy is a goal whether or not it is reached in practice which mostly it is not. But at least the ideal is there and a great deal of investment of public monies has provided a ready-made base for production. We don't ask too many questions about who writes what, partly because the means for entry into the writing market are so cheap. A pencil and a piece of paper is all that it takes. You can be sure that if and when half-inch video does become as cheap as writing, you may see quite a different picture, if you will pardon the pun. (laughter)

Moreover, big brother censorship and so on - that has not changed much either. Publishing has censorship built in right from the start and oddly enough exercised by professors long before the Church undertook to condemn books. This is a direct consequence of common control at that time of both conduit and content. That is, professors sat on top of the content, they produced it, they read it, they also controlled the conduits because they were the principal purchasers and patrons of the printers, so any printer who offended a professor had had it. And you know the books were read by, were written by university professors. They were read and corrected for errors of printing by men in universities or trained by the professors and so on and they were sold mostly in university circles so that it was a completely closed kind of circuit with wide possibilities for censorship. Nothing that I know of suggests that cable operators and the entertainment industry would behave any differently if left in control of both conduit and content.

To me this is one of the central issues because, from a pragmatic point of view, anything that denies that the early development of cable has been, is and will continue to be guided primarily by the entertainment market I think is being unrealistic. And so the question of joint control over conduit and content is both in contemporty terms and from all the available evidence in history, one of the major central issues. This point is consistent with the point of view that Herman Kahn expressed and I quite agree with is this caution against over-engineering. I think it is insane to try to predict, control and engineer in detail what is going to be piped, over what kind of pipe, to whom and in what market and for what purpose. But I think it is centrally axiomatic for the development of any information technology in a democracy that control over conduit and content be kept separate.

Now let me turn to some current issues and discuss them in some terms that were presented earlier by my colleagues.

Again pragmatic reality tells us that Cable Television Systems are developing through their tie-up with antennas. That is where the money is being made now, if it is. That is what the regulations are currently aimed at. Yet if we take the more idealistic, longer view, that is a completely wrong-headed and misguided way to look at this technology. When I see in the Midwest decision that Chief Justice Berger echoed the notion that CATV is dependent completely on broadcast signals, I find it understandable since that is so prevalent a view. But it is nevertheless as wrong-headed as whatever must have been in the minds of the Supreme Court back in 1908 in the White Music vs. Appollo Decision where the Supreme Court, in its wisdom, decided that player piano rolls were not copies because copies were something that human beings could read unaided, thereby throwing the record industry into a situation of piracy and chaos that has only recently been cleared up in law if not in fact by anti-piracy laws passed by the Congress.

Such misapprehensions on current pragmatic grounds of actual technical potential can have very serious long-term consequences. And I think that the notion of identifying cable with the antenna is one of these. The notion of regarding Cable as a closed system is another. As Mr. Etzioni pointed out quite rightly, it makes no sense to look at Cable without looking at cassettes and it makes no sense, of course, to look at cassettes without looking at the Post Office and therefore the whole question of how these technologies are to develop is in fact tied up not with just FCC and Cable policy but very intimately, for example, with Post Office policies because one legislative stroke in Post Office policy could radically alter the balance of cost of distribution of materials as between bicycling them in cassettes or tapes or piping them over pipes.

This is not a far-fetched kind of thing even though it can happen quite accidentally. Let me draw an illustration of the point in another realm. The whole business of 18-year-old voting and residency in a college town is having a wide effect on state colleges and universities and their traditional differential rates for resident and non-resident students, because the out-of-state students who heretofore were disenfranchised are now starting to get registered and are also claiming that by virtue of their voting right, they are bona-fide residents and entitled to the in-state rates.

You know that is a kind of a radical side effect of legislation aimed at an entirely different direction; while it would be foolish to try and predict such unanticipated events in this realm, let me remind you however, that they are entirely possible and that this area is particularly vulnerable to them because in spite of the closed society aspect that Cable afficionados seem to have, they are in fact imbedded in a much wider context that includes not only such traditional enemies as the broadcasters or the telephone company but also the Post Office and publishers and everybody who has any say whatsoever in the production storage and distribution of information. And so that developments that may occur in the business or legal or regulatory world, in any of these other information realms, may have immense leverage on this one. And it will just not be sound policy for anyone to contemplate merely their own navel.

Now the distinction between CATV and CTTV is perhaps less solidly enshrined but still something to be contended with. One interesting question is whether this distinction is or is not contrary to the public interest. Now for example, in the current inquiry on Cable, the FCC asks, at long last, whether there are means of protecting the public less restrictive than the commission rules already adopted. It is hard to avoid the inference that the protection of the public and the protection of broadcast television have been treated as synonymous. And solely, you know, because the whole question of Cable is related to the question of that antenna. There is that antenna there.

Now to go back to Bonanza for a moment. I think it is undeniable that the public not only gladly watches what Paul Klein calls the least objectionable programs but it is equally clear that in the California referendum a couple of years back, you got a rise in furious opposition to pay television. There is one of those questions where one has to ask where the narrowly informed public attitude is equivalent to the broad public interest. It is an uneasy answer either way because if you say it isn't that you shouldn't assume that a public that has been brainwashed into its attitude by the broadcast interests is entitled to vote its own way and have its head, one is led into the kind of intellectual arrogance that is so typical of all of us here who identify our own introspections with the popular will. Yet on the other hand, it seems irresponsible to assume that just because the specter of paid television looms so large one must put up with it.

I can agonize over these things as a professor and see them as interesting intellectual questions. They bother me even more as a Cable commissioner because what has become most clear to me in the few months that I have now sat on the Massachusetts Cable Commission is the massive public apathy on all issues that we are discussing so eloquently and vehemently here today. It is powerfully hard to find anyone outside this room who really give a damn and I think that perhaps this is one of the most serious questions that we all face here because -

DR. KAHN: . . . . . . outside this room nobody gives a damn.

PROF. OETTINGER: . . . . . . and so that the choice between arrogance and narrow misinformed attitudes is an agonizing one.

Well, that distinction, that tying of CATV to the antenna creates some problems in some other areas. It is hard to see how, from Etzioni's open town meeting point of view, you can take any joy in a conventional outcome from the battle among Sterling

Communications, Columbia, the New York Telephone Company, and so on over that technically specious distinction. Technically, that argument is null and void. There is no technical distinction between what Columbia pictures is trying to do along with the phone company and what Sterling believes it has a franchise to do. The distinction from the legal end is a very serious one. Sterling is licensed because it has those rabbit's ears in the sky. Columbia has no rabbit's ears in the sky and is unregulated except insofar as the links that it buys from the phone company happen to be regulated under some entirely different kind of historical system. Now if Sterling wins that battle, then so will the Cable interests that are tied with the broadcasters and other special interests in those particularly monopolistic compromises that are embodied in FCC Cable Regulations.

MR. CUTTER: It might be worth one minute to tell them. A large part of the audience doesn't know about them.

PROF. OETTINGER: Oh, they don't know about that issue? Okay, I didn't realise - there are fewer afficionados here than I thought. There are some people here that I don't even recognize. (laughter)

Here is what the issue is. Sterling is a subsiduary of Time/Life which has a franchise for part of Manhattan for classical CATV services. Columbia Pictures has gotten together with one of the hotels and is piping movies over the telephone company lines to hotels and the issue is over whether that simple scheme invades the franchise rights of Sterling. The counter-claim, of course, is an obvious one. That there is nothing that the opposition can discern in a franchise that prevents a private citizen, corporate or individual from asserting his right to buy lines from a common carrier who is duty-bound to take on all comers, ask no questions about what they are piping over. And in particular, not to violate the privacy of what is piped over his circuit, to pipe them at a tariff price, etc. And so you find here this fascinating issue because you have franchise rights and so on one side and you find the phone company on the side of the downtrodden businessman and the public (laughter) and their right to pipe whatever they want to anywhere. (laughter)

If Sterling, who has the franchise wins, then the status of Cable as ancillary to broadcasting and all of the shaky Southwestern, etc. structure that follows from it, is reaffirmed. On the other hand, if Columbia and the telephone company win, then that Cable Television of abundance and town meetings and so forth and so on - instant shopping - may serve but a very thin gruel to the general consumer because free from the restraints that shackled paid TV over the air or over the cable, this so-called closed-circuit television can very easily skim the cream of business in the hotels, offices, and the professional segments that Herman was talking about. Moreover, whether you call that skim creaming, realism, or sound policy depends on where you sit. (laughter)

(General discussion)

There is no difference - no difference - there is no difference because the telephone company would lease for a price in downtown Manhattan. This is as broad a band as you want. You see, this is different.

(Question from audience - not loud enough to be picked up on the tape.)

Well, that is a very interesting question . . . . . . it is hard to tell. You know there is a limerick where - it's about buggers - I forget the front end but the tail end is (laughter) "it's hard to tell who is doing what and with what and to whom" (laughter) and the question therefore of separability of antenna from the rest of -- I will get to that a little more in a moment. (laughter)

DR. KAHN: I think the major difference is just that (words lost) has used an antenna is regulating the public interest. There is all kinds of expenses. The other is pure private enterprise.

PROF. OETTINGER: That's right.

DR. KAHN: Otherwise, it's identical.

(General discussion)

Now if Sterling is smart, they can compete also technologically with the subsidiary, if the FCC will let them.

(General discussion)

PROF. OETTINGER: TelePrompTer is, at the moment, involved in a suit against the Canadian Government where they are playing the Columbia side and it is kind of fun to watch (laughter), all the bets being covered on all fronts here.

DR. KAHN: TelePrompTer is exactly in the middle of the two in California -

PROF. OETTINGER: Yes - so let us - supposing that you have this situation where the so-called closed circuit television is indeed indistinguishable from so-called Cable Television except for that little wire going to the antenna - if you let it go and develop and so forth, then some healthy competition - well, some competition with the telephone monopoly, though a payoff in some sense because they would be part of it -- and some competition with the broadcasters and with the existing Cable franchises could ensue and competition in the American ethic is good, true and beautiful. But if you take the view that the main goal is to get Cable out to everybody in the community, whatever that is, then this is deadly and contrary to the public interest because then what seems like good pragmatic entreneurship in a sense becomes cream skimming and all that will be left for the franchised Cable entrepreneur is the dregs of the city or the dregs of the country, and dregs is not where you make your profit.

I personally think that if there is any public interest in Cable at all, as opposed to complete laissez-faire, then it has nothing to do with antennas. Antennas are the interest of the broadcasters, not of the public.

If there is a public interest in Cable, it lies precisely in this question of whether or not Cable is to reach every place because that is a question of public interest. It has been a question of public interest in every communications technology on a major scale that we know. If cable services are to develop in this idealistic, long-range view, then we have got to find some way of bridging that gap between the places where it is now mainly entertainment, economically viable and its longer range broader view interests. That is the hard problem.

So if cable services are to develop in a manner that can help every individual both to be informed and to be entertained and so on, and to participate fully in our society, then I think we find some interesting things in George Washington's words to the Congress on the Post Office which come much closer to the public interest mark than consensus over special interests or regulation. Washington urged Congressional attention to what he called "sufficiently liberal and comprehensive plans for the Post Office and Post Roads" Keep in mind that there again there is a possibility for cream skimming by local express and local delivery services in urban areas which were flourishing as private enterprise - but Washington stressed a "sufficiently liberal and comprehensive plan for the Post Office and Post Roads" because of their importance as an instrumentality in diffusing "a knowledge of the laws and proceedings of the Government which, while it contributes to the security of the people, serves them also to guard them against the effects of misrepresentation and misconception."

I think it is hard to make a better case today for the public interest in Cable. Either it reaches everyone as a matter of public interest or there is to my mind very little public interest in Cable or, rather, only secondary questions of rate "gouging" and so forth and so on which are common to lots of industries and do not particularly single out this industry.

Now my view of a sufficiently liberal and comprehensive plan is that it should materialize for all the people, the advantages of economy of scale and the variety of choice that are possible only by combining all-inclusive cable and even the interconnection of cable systems with due regard for local and indeed individual interests in both access and revenue.

Now, I think there is - I detected among some people that I hear from on the so-called public interest side -- a certain measure of paranoia about MSO's - Multiple Systems Operators - and here again, the paramount necessity of separating control over conduit from control of content is to be kept in mind. But I think that the notion that what is local and what is a community - at least as I interpret it from what I hear and read- tends to be misguided by ancient views of archaic technology. That is - it still is assumed even in the context of a cable discussion that a community is a geographically focused entity. And that just simply ain't so. What is relevant is that illustration that Herman Kahn gave earlier about editions of Penguin books where one edition of ten thousand can be on some "archaic" subject and it will sell and it will make money. Why? Because that audience is geographically dispersed and the distribution of the books through the Post Office, express and other facilities makes possible, even now, in the realm of book publishing a notion of community that has absolutely nothing to do with geographical contiguity. It seems to me mistaken to view localism as something that is solely geographically "focused". Geographic community is an important concept, but it is far from being the only component of the notion of community or for that matter of market.

And therefore it is necessary to seek a balance between local control and local interest in the geographic sense and local control and local interest in the sense of the dispersed community of chess players or French cooking afficionados or you name it - whether it is a political context or a hobby -- it just makes more sense, particularly in the context of this kind of technology, to avoid any view that restricts itself to defining local community in only a geographic sense.

But if you take the broader view of community then the whole question of interconnection, the whole question of multiple systems, the whole question of the role of, say, cassette distribution as a way of competing without complementing broadband, satellite or other fancy types of interconnection as a way of reaching larger communities, is something that, I think, must be considered on a par with the more limited forms of most of the literature and most of the discussions in this field. So I leave you with the thought on this point that the notion of community needs to be looked at in a much broader sense than has been done in CATV discussion.

Now on the other side, I think that Government intervention, whether local, state or Federal, must foster cable development in a manner that is orderly as something more than a euphemism for protecting existing interests against competition. The aim must be not only to protect the public against shoddy services or unfair pricing but, by encouraging diversity and competition, the primary aim must be protecting the public against too highly concentrated control over information production, distribution, storage -- every aspect of the information life cycle from the time it leaves somebody's mind to the time it reaches some other mind.

Thence the basis for Government intervention, it seems to me -- and now I am speaking of the long idealistic run because it is perhaps a little quixotic to expect anything to change in the short run - the basis must change to serve this over-riding public interest. However valuable it has been as a start for Cable, however valuable it continues to be now - and remember my starting anxiom was that anybody is crazy that doesn't recognize that entertainment is the primary market now and that Cable would certainly not get off the ground without that market -- but however valuable it has been for a start for Cable, however crucial to broadcast interests, the reception and distribution of off-the-air television signals is not in the long run of the essence of public concern.

The antenna or the microwave link is but one of the many sources of entertainment or other information sources that Cable can bring to all citizens - again in the medium and longer run.

And so a sounder approach to the question of Government intervention in this realm should be by severing the connection between the antenna and the distribution system, first in accounting and then in ownership.

There are lots of model accounting schemes floating around that are being urged as models on localities and the States, but I have yet to see one -- and if someone has one, please give it to me -- which recognizes the need even now to treat the accounting for that "head end" as one among eventually many sources of signals, in one accounting pocket and for the distribution system in another accounting pocket.

Unless that is done, we won't be able to tell one thing from another. The wedding of the head end of the antenna to the cable which is - from a technological point of view - from a long range point of view - an accidental miscegenation, this wedding will be enshrined. However, we need to leave the long range possibility open without causing chaos immediately. The question is keeping that golden goose alive long enough for it to lay an egg, and if you cut its head off right now, neither the public interest nor private profit will be served.

And so I think that the existing cable systems should keep books that reflect the wholesale delivery of off-the-air signals to the cable distribution systems for resale as part of a competitive system of channel capacity sales so as to illustrate how to maximize profits from distribution as a primary service, whatever the source of materials for distribution.

In the long run, I cannot see Cable as anything but primarily a distribution system and the wedding of the antenna to the distribution method obscures this by giving a special and very peculiar status to one among many sources of signals. Now again I recognize, just as I recognize that IBM and AT&T are here, that the distant signals and the local signals are here. So I don't offer quickie solutions to this question. I present divorce to you as something to navigate by, as a policy objective.

So long as copyright legislation and payment legislation remain in their present chaotic state, regulating what signals an antenna may sell for distribution has just some justification in elemental fairness, in due process and in the ambiguous support from the Supreme Court. The Southwestern decision and the local origination rules that have been upheld in the Midwest decision can be identified with the broad public interest to the extent that they support local choice in what cable systems distribute from any source. But I remind you that even there local origination is construed in that narrow sense of the geographic community rather than taking into account that broader sense of the geographically dispersed community which to me is equally critical.

I think that the vital public interest in free choice of information is ill-served by the restraints of the trade that are embodied in the FCC's Cable Regulations. In my mind, and it's a lay mind in this realm, it is doubtful that recent Supreme Court decisions support these regulations which do not, in any case, visibly apply to Cable systems that have no antenna connections. It is a curiously discriminatory kind of regulation. It seems essential to the spirit of the First Amendment for a well-informed public to have a genuine and free choice of what sources of entertainment and information services it wishes to use and how, directly or indirectly, it wishes to pay for them.

Now again, there are always people watching Bonanza. Perhaps some of them will feel better when watching Bonanza if they know there is a town meeting on another channel. I just wish that some of the beer drinking Bonanza watchers would come forth and say they will put their votes and their money and so forth where that latent desire is. The evidence so far is meager but still I am with my colleagues in their intellectual arrogance in believing, on this score at least, the public should be protected against itself and its options kept open even if it is not willing to exercise them at this point. But that is about as far as my arrogance will carry me, not to suggesting or telling anyone what it is that they should do, but rather to maintain some measure of public trust that the options be kept open.

In the same spirit, this whole question of addressing services to professionals and so on, as cream skimming or as a way to grow - do you extend regulation to this sphere? Do you let it grow as a competitor? These are critical questions. My own instincts would be that the less regulation the better. Because I think that there is a whole other respect in which the current developments in the Cable field are antithetical, both to the historical evidence and to the character of this technology. We talk about television of abundance but we regulate it as if it were still in the scarce era. And it is really a very different kind of animal both in itself and in the light of some of the earlier comments on the variety and the interchangeability of all information technologies. The multiplicity of channels within Cable and the interchangeability of electronic channel capacity with bicycle channel or post office channel capacity or other types of channel capacities, inherently favors greater competition than in the past and less of the heavy-handed regulation that was once called for by the scarcity of over-the-air spectrum and the natural monopoly aspects of the telephone system.

Competitive pricing of the many channels in a readily expandable cable distribution system should enable our treating cables as common carriers but not necessarily with that cumberson rate-of-return regulation that we seem to carry over unthinkingly from the telephone. Somehow the notion of common carrier and the notion of rate-of-return have become indissolubly linked, like ham-and-eggs, if the pig and the chicken were a single animal. They are not. They are not indissoluble as far as the technology goes, however, it may appear to be so in current regulatory and intellectual trends.

And I would suggest further that electrical information technology of the new kind has so much in common with the technology of writing and printing that its development can gain a great deal from examining precedents not only from electric signal distribution, but also from print distribution. With all its shortcomings printing technology in the U.S. has, through First Amendment guarantees, through the Post Office distribution system, through literacy training, etc., has become a much more competitive and democratic instrument than the electrical communication industries where oligarchism on the inside and on the outside have had a far greater voice than the individual citizen in whose name they presume to speak. (applause)

MR. CUTTER: We have a period for discussion with the audience and I think the way we should proceed is that anyone who has a question to identify himself as a record is being made and address your question to any or all of our panelists.

MR. STEINER: Mr. Robert Steiner of the Wilder Foundation. Professor Etzioni, would you identify places where lists are sold giving particulars of people's individual television viewing habits?

PROF. ETZIONI: I don't think anything could be gained by identifying them publicly. I will provide it to you in writing.

MR. STEINER: Yes sir.

PROF. OETTINGER: Let me make a point on that. I don't know about lists of cable but it is the issue that, parallel issue that he gave about motor car registration and so on. I think it is just as arrogant to deprive people of the right of being on mailing lists as it is to put them on it and you know to me, the California vote smacks of a kind of Fascism that is as unacceptable as the "outburst."

Again, this is a thing that need not happen if one takes a look at the information technologies as they are as opposed to what they seem to be in nightmares. It is really quite easy with a computerized system to be selective and ask you at the time "when you register your automobile" whether you want to be on the mailing list or not to be on there.

It strikes me as insane to legislate one way or the other. Now it strikes me as equally insane to use the motor vehicle example as anything but an analogy because without having thought deeply about the implications of similar practices, my guess is their impacts, who they effect, why and how are likely to be quite different. And that blanket treatment of the Constitution Amendment "time" is likely to be as atrocious as any outburst "view" of the situation.

PROF. ETIZIONI: Mr. Chairman, (words lost) briefly that the words insane and Fascist have been used (laughter) - in my book, they come "on the page of the general side." They are not to be too quickly thrown around but there is really much less difference, you know, than there seems to be indicated. We did talk about consent and not providing information about private living - you know, in the home conduct of a citizen without his consent and I think that that is the same point to be made now. It is fair to say that the State of California did not "go" because it was not practical to get consent - given the choice of violating everybody's privacy without his consent or not - you know not having an instrumentality at that stage, they went ahead in that way. Now I read a brief of the State of California. The whole brief for consent being acquired and not being either insane or Fascist.

Now as to the second point, the point I made is a more political point than a kind of a constitutional point. The political point is like this. There is in the community, and I can again if anybody wants, mail you a box full of newspaper clippings, this "specter" of 1984 in the community. It is being raised whenever you come and say you are going to have another wire going into your home and I am talking now about even if there were no great Constitutional issues, even though I believe they exist, it would be pragmatically wise not to seek to violate the privacy of people even if there were no Constitutional issues involved.

MR. CUTTER: Herman, did you want to comment on that?

DR. KAHN: Yes, I would like to, three quick things. There is a kind of paranoia in academia about this 1984. We had a lot of calls, a couple of years ago, on have you done any study on how to postpone elections, you know, or take the iron mountain kind of things. These things are simply not believed by any reasonable person as far as I can tell. But they were believed in academia like Harvard, Yale and Columbia people and so on. But aside from this paranoia, I think it is very important to take the position that MITRE took of leaning over backwards for the consensus of the House. I don't give a damn whether - you know - it is just the right kinds of policy. I think we ought to agree on that.

Let me make a statement which you may disagree on. Take this question of skimming the cream which is a central issue. Now almost any industry I know of, if you had taken that attitude, would not have developed because it is not a question of public service skimming the cream. Take automobiles. There was no way to provide a new automobile for everybody in the United States. I am sorry - it had to go to the rich first. As I say, there is no way to provide new housing for the poor in the United States. And at times in New York City and Washington of given sixty thousand or eighty thousand dollars a unit, by the way, is kind of crazy, you see. Generally speaking, you milk the rich for whatever the traffic will bear and they pay the burden of the original costs, you know, and then everybody benefits from the quick developments. Now this has been true of every industry I know of, practically, including the book example. If you had insisted on a wide distribution, of books, they would not even have gone. They would not fly. And this attempt to get justice on the very first day of the system, I mean, I don't know what to say about it, except God Bless You. (laughter) It really slows things down, you see. There is one other point that I want to make and then I will quit.

On this question of this enormous attraction of the instant polling. Look, this guy watching Bonanza votes - you know who does not vote? The people in this room. Forty-five year old Union carpenters vote eight times more often than graduate student, student graduates of colleges, of graduate courses. That guy votes -- don't kid your self one bit. His union makes him vote. He represents his interests. He wants to watch Bonanza at eight o'clock at night. Why does he have to vote at your convenience? He ain't happy about knowing about this townhall going on. He is very suspicious. Very hostile. He has representative Democracy, you know. You are polled at the time assigned by the State. You can go anytime between seven a.m. and eight p.m. You know he can take his own time, and that is what he wants. He hates participatory democracy. You would be shocked by his intensive hate of that term. He just does not like it because he has seen it kill his unions in the old days.

By the way, the (it sounds like: "Zakri") Unions were killed on account of the extremist groups take-over. They scheduled meetings at three a.m. in the morning and he can't attend. You know they make the meetings real long, you see. You don't get discussion in the townhall sense. Go to New England, they still have it. You get three hundred, two hundred, a hundred people in a room and they talk to each other, you know. This thing is nothing like that, you see. Now I believe there may be something like this come up. I don't know what it is going to be, you know.

The soapbox system that Etzioni is suggesting is used by every authoritarian country in the world. That is how they "politicize" from the top, you see. You go to Chicago today and they still vote ten per cent of the dead people. (laughter) (words missed because of laughter) - poll watching in the system, you know; really they have poll watchers in every ward we have; politically, nobody will ever die. (laughter) That will give you that sense that we are talking about. The enormous, you know, the enormous attraction of this instantaneous voting for the intellectual elites, not the Bonanza guy; it is something that ought to be watched, carefully. (laughter).

MR. CUTTER: The gentlemen in the red jacket.

MR. SWAGGER: Mr. Richard Swagger of Grand Rapids, Michigan. I know that this is going to be taken up at one of the later workshops, but I wonder if the panel has an opinion and if so, I wish that they would elaborate, on public versus private ownership.

MR. CUTTER: The panel certainly has an opinion on this. We have had Mr. Etzioni favoring a general public ownership. I think that I am right about that. Herman, do you have an opinion on that?

DR. KAHN: Yes, you want public ownership. I think public ownership is better than regulation. Regulation really is lousy. You want public ownership where the market system does not work, you know, and that is the most important case. If we have a sudden change in the situation say like starvation, you know, they don't want to sell to the highest "comer" but you want to ration it because of the babies - or we have intrinsic monopoly like the airwaves and I think Prof. Oettinger's point is exactly right. The fact that you have an enormous amount of channels available, particularly graveyard channels, that is channels at three a.m. in the morning where you can set your thing to record, you see - and here the competition works again to make it easier.

For example, I will bet you the biggest boost to cassettes is the fact that you can set it, if you have paid TV, where you can record things at 2 a.m. in the morning. You get a big initial sale when you produce the thing, you know, on the first live recording, two fifty ($2.50) an hour, and then the rest of the sale is cream, you know, it comes up later. It is just like selling book rights to a magazine first, you know, and things like this and this is a cash flow issue again. You get your money back right away, you don't have to wait, you see, and I think this should all be brought together and then force each other. This thing is an economy of abundance.

Now, normally, I am always on the side of commodity as a scarcity but this one is a commodity of abundance and therefore, I think you can let it rip, you know, and the thing corrects itself. Now you do want to have certain safeguards for things which are not going to fly, commercially, you know, but you have your constant fly commercially and it is a normal subsidizer. They are very small and they should not panic after the entire system, you know, they should be subsidized rather than put out by the (it sounds like: "instruction").

MR. CUTTER: Professor Oettinger.

PROF. OETTINGER: Well, you may have some point, why some like rural electrification or rural "telephony" but I think this issue of public versus private ownership, you know, is a serious and important one but I would classify it among the things that Herman Kahn characterized earlier as the unserious but dramatic problems that mask the serious problems.

Because more important to me than ownership is a very obscure question that you find hardly treated in existing regulations and so on which is the question of foreign attachments aside from inter-connection. Now it is a major issue for those who know about telephony. It doesn't seem to have reared its head in this area and yet nothing, none of what we talking about here, blue sky, dark sky and so on will come about if somebody isn't out there local or otherwise, not only of the Cable but what is at the other end the home end. And I have seen franchises that very neatly at this point essentially tie that up so that, nobody but nobody, will get through that tube into the home without passing through the little black box that the cable owner, municipal or otherwise has put there.

And the question then of now - and this is, I think, quite consistent with the general viewpoint that if you let things happen but make sure that no options are foreclosed, that now what you want to look at is this undramatic issue of assuring that in the course of proper negotiations you make processes possible so that whether for commercial purposes, public access purposes or so on, no one can tell you that you can't go through that that one box which may or may not meet your needs. Now the details of that are "eminently" negotiable because nobody knows yet exactly what should be in that box or how much it should cost or who is willing to pay for what or who will abandon Bonanza and beer and all that sort of stuff. But it seems to me quite inimical to any interest, public, private or otherwise, money making or "politicizing" - to let control of that little box at the home end rest in individual hands without recourse.

MR. CUTTER: Mr. Swagger, I think that you are free to go your own course since you have heard one public position, one qualified private position and one you better ask the right questions. (laughter) Amitai, you want to comment on this?

PROF. ETZIONI: Yes, very briefly. I am not completely sure that all of you follow exactly what is happening here. What you have now for the third time is a common carrier philosophy usually associated with the telephone company. I am not saying you personally. I want to make very clear but that philosophy is usually associated with the telephone company which provides that kind of a service and the position has been taken as you have seen early from the pictures - you don't need that thing at all. I mean every home, practically every home has a telephone. They could pipe in their television programs over the telephone line or we could get a cable with the same principle. There is no one person who owns the Cable if the common carrier owns the Cable then, and then people buy it.

But there are some very powerful and good arguments that can be made for the common carrier concept. I just would like to note two facts. First of all, there are very, very few places in the country - this is the system that should be introduced so all the attributes of the common carrier, whatever they are, what in effect, is usually what makes the Cable television a monopoly. It is not legally a monopoly like in the city but in effect it is a monopoly because if somebody gets the conduit and the little black box, and it is the investment of buying half of Manhatten, in effect nobody can go and buy it again and compete with the system. So the question that arises once you get technically and economically a monopoly is what the public has to do about it. So that is one part of the issue. Whatever the metaphysical future of the common carrier they either sack them creating new monopolies all over the country.

The second question - and I hope there is an engineer in this room - I would like to get a little clarification on a little thing which is kind of lost aside and I would like to put it very succinctly. Is it correct that a film carried over a telephone line -

(General discussion)

Now wait a minute, if you say they wire it in and put in coaxial cable then why should the telephone company get that business too? So then the question you see is - you see that is the question really - either you need existing telephone lines -

(Many "no's" from the audience.)

I seem to have a view so intolerant that I won't be allowed to express it.

(laughter)

DR. KAHN: No. You can't use two thousand cycle telephone lines for pictures.

DR. ETZIONI: Okay.

DR. KAHN: I am not an engineer. I have taken care of your question.

(Laughter and comments undecipherable by Dr. Etzioni and Dr. Kahn).

A PARTICIPANT: I am not an engineer but I hire engineers.

DR. KAHN: That's the best kind.

PROF. ETZIONI: Yeah. (laughter)

PARTICIPANT: First of all, you can use an ordinary telephone wire for slow stand but you must use a coaxial cable for transmitting a motion picture.

MR. CUTTER: This lady right here in front, please? Would you identify yourself, please?

A PARTICIPANT: I am . . .

GENERAL COMMENT: We can't hear you.

PARTICIPANT: On the question of Columbia Pictures and Sterling, Inc. is there is possibility that this could result in Government regulation of closed circuit television?

MR. CUTTER: I don't know. Perhaps, probably there is very little surfacing on that and I haven't burrowed deeply myself into the knowing circles to know but it is an interesting question to ventilate.

DR. KAHN: I checked the Interstate but TelePrompTers avoided Government regulations by simply not crossing state lines on closed circuits. I think that legally that is going to hold. So as long as you don't tap into anything that crosses the state line, the Government demand, you know, I suspect that you are going to avoid the regulations.

PROF. OETTINGER: You are violating my Civil Rights, Herman, damn it. What you are going to tell me by extension then, you see, is that I cannot cross state lines in telephoning my wife without being regulated.

DR. KAHN: No, no, I put it the other way. I said that basically if you are not going to take a radio signal across a state line, you know, this basic concept over here, or (it sounds like: "worldwide industry" like the antenna. I don't see how the Government can regulate closed circuit TV.

PROF. OETTINGER: Even inter-state?

DR. KAHN: Well, I don't know about inter-state but within the State, I don't know how the Government is going to control regulations. I think it is. You are a lawyer, I am not.

PROF. OETTINGER: I am not a lawyer.

DR. KAHN: My impression is that -

PROF. OETTINGER: I am an engineer.

DR. KAHN: I don't want to play lawyer. But let me give you my impression and somebody may want to correct it. My impression is that there is probably no easily available legal way for the Government to regulate what may be called closed circuit TV that is within a state's borders. You know, it does not cross the state line and does not use any attempt. That is my impression, am I right?

A PARTICIPANT: You are absolutely right.

MR. CUTTER: Would you identify yourself please?

PARTICIPANT: (It sounds like: "Herman Borg, City of New York.") The office of Telecommunications and we are involved in this Sterling case. And another thing - you have covered so much ground that I don't know where to begin - you have called New York the early warning of what will happen to the rest of the country and I think to some extent it is true; everything that you have warned about, we are fighting now. First of all, about the Sterling case, the argument that seems to be arising now is that if the FCC really is serious about what they believe is the future of Cable Television and with all its ways and all of the things it can do, that it ought not to allow this kind of cream skimming based on the arguments. And there is a battle with the FCC now between the Common Carrier Bureau and the Cable Television Bureau saying in effect, moving into the common carrier direction, that they ought not to make any ruling on the situation where the Cable Television Bureau is saying they want to extend it even to master.

They want to extend the definition of Cable Television even to master antennas, which means that even if you have an apartment house, which is receiving several signals over the air, and charging the customers, two dollars a month or whatever it might be, and the sometimes the apartment house, as some of them will do now, will organize a tenant television program which results in some origination and they will provide some other resources, they now want to extend that definition to even the master antennas. Now the argument that Sterling and the argument that the City has - it is the old Section 214 of the Federal Communications Act, 1934, and I believe that it is the argument that was used against Contel also of New York which got - the telephone people got Contel out of Cable at that time. So it is a very - it is an issue - and the argument by the way that Sterling uses also is that in effect, Columbia pictures is engaged in interstate commerce, that the films do come from out of state and they do -

DR. KAHN: Because they cross the border?

PARTICIPANT: They cross the border and that is another argument there. Now let me make one other comment. You mentioned the argument, the question of the foreign attachment. In actuality, we have that problem right now. The New York City Franchise tried to establish essentially a common carrier type of ruling to the access channel saying that first come, first served on the access channel - it is not public access - it is the access channel so that you can encourage other people, people other than the Cable company, in fact, it says specifically that the person using the access channel ought to be someone who is in no way connected with the Cable Company, either by investment or any other route.

We have managed to create a situation where we have got applicants for the access channels and we close every door but a very nice one which we have very little argument about, just about right now and that is - yes, we will install this man's system or this man's attachments to our system but rather than have him pay his eight dollars and fifty cents installation, we want fifty dollars to install it because we feel very strongly that there is a possibility that this may result in two and a half service calls, and at twenty dollars additional service call that means that we charge fifty dollars, so, in effect, we are coming up against this type of foreign attachment rule. And if we are stuck with the issue of looking at it from the common carrier point of view, I don't think that we can progress very far; we have to look at it some other way.

Now let me make one other point which is the paradox that I have been asserting. Dr. Kahn mentioned it and I believe it is an issue that we really have to face. As you know, in New York, we have been experimenting with public access and you will be hearing a lot more about it from several people here, and one of the paradoxes that I have observed is - I am a champion of the public access - I keep saying that all the time (laughter) and although that I think that the way it has - the way it will go in the future may be quite interesting and it may not be what we are doing now, but the same people that champion public access are also the people that champion the information franchising of all the people in the community - all the minority groups.

Why is Sterling not down in the Lower East Side? And the Cable fable made the story which, perhaps it is true, that that is because Chase Manhatten or whoever financed them, said go in the areas where they will create cash flows. Now one of the reasons that they are not going in those areas is because the rates are high. The rates are six dollars a month. That is a lot of money for people to pay and the very people that are pushing for more and more access, more and more public service, are pushing the rates up, you see, rather than down. And we would like to believe or find a way in which we can come in at a very minimal rate, even if it means that it is very unpopular, even if it means charging the city, charging the access people, even the public access people, for a small fee to use the channel, because, I realy do think -

A VOICE: Oh! You could not do that! (laughter)

PREVIOUS SPEAKER: This is an unofficial policy from the top of the head but I would like to see the possibility of a franchise where the rate is not more than two dollars a month and where there may not even be a franchise fee for a certain number of years, and where there may be a very modest installation fee but the requirement is that everybody gets wired up and then maybe subsidizing some of the services - the public services become meaningful, that major users of the city channels, which nobody has said very much about and yet, as I see it, every city in the top one hundred markets is going to have it because of the broadcasting system on its hands. New York has had one for a great many years and God knows we don't quite know what to do with it and so I think that this, I feel that this is a paradox that I having trouble following and trying to understand. I think your comment of trying to get more (it sounds like: "van") on the very first day, is kind of a publicity.

MR. CUTTER: The gentleman at the back of the room on the left.

A PARTICIPANT: I am surprised that -

MR. CUTTER: Your name, please?

THE PARTICIPANT: That Herman thinks that -

MR. CUTTER: Your name, please.

THE PARTICIPANT: David Rosenbaum, MITRE. That AT&T is going to go so quietly and their having once tried to get in at the beginning and take over the business and not really having made it, they are aware of the fact that technologically they can be displaced by Cable Television and the result of this I am told is that Bell Labs have now developed a system of fibre optics in which they are going to change the whole local distribution system in the country over a period of time to put fibre optics into every house instead of copper cable, copper wire.

Now there is good reason that they can do this without any complaint from the Government because in fact, the system is so much cheaper that they can provide phone service cheaper by doing this than they can by keeping the present sort of system. It is just accidental if this will also bring a hundred channels into your home at no additional cost.

I think that this technological development that since I know for a fact that this is working at Bell Labs, and with very dramatic progress over the last few years and because of the fact that the only real threat I can see outside of being broken up in an anti-trust action, it is possible in our lifetime that AT&T is Cable Television. I can't imagine that. Well, let me put it this way, I can't imagine that coaxial cable is what is ephemoral and in fact what is going to happen is that the country is going to be wired with fibral optics and the economics of the situation I think so much cheaper will overwhelmingly dictate that the Cable be put through AT&T whether it is broken into pieces or not. And that will dictate the fact that in some way, CATV will be a common carrier service with people. I think technology in the medium run, and particularly in the long run, will drive the whole situation.

MR. CUTTER: Herman?

DR. KAHN: I want to make three comments. First of all at the turn of the century, the big industries in America were the mine owners and the railroads, who are both very sick today. One of the main reasons by the way was regulations, particularly with the railroads. They knew that the truck was not filling the airplane and so on but they were just kind of dumb about the way they reacted. We now know that technologically the railroads could have reacted in ways which would have saved them. We know that now. They did not know it then and they were too dumb to do it. Most regulated industries are very left footed. AT&T is sometimes very fast and sometimes left-footed.

I am sort of betting on the left footedness. (laughter) I don't know - I really am. Now fiber optics are a technical issue. My understanding of the issue completely amplifies basically my presentation (words lost). You know, my friends were all wildly optimistic, think it will be done in five or ten years, you know, and so that would agree with your statement. My own inexpert guess is like fifty years. Now I mean by this I suspect that my friends are being very optimistic, you know. If these kinds of amplifiers come through in five to ten years, then basically that is free if they come through. It is just free, you see, and you have a common carrier install it and charges a nominal price for it, but he charges only for switching, not for bandwidths anymore. It is very big then you see. I am betting on left footedness and technological overoptimism. It is great. You may be right.

MR. ROSENBAUM: Well, my information from Bell Labs is very much in the direction for five (5) years rather than fifty (50).

DR. KAHN: My information is the same but I don't believe it. (laughter)

PROF. OETTINGER: On thing that we can be sure of is that the lawyers will benefit. (laughter)

MR. CUTTER: The back of the room, over here, please?

MR. SIE: John J. Sie, from Jerrold Electronics. (He speaks at the back of the room and not from a microphone and was not heard very well by the reporter).

I have somewhat of a technical question -

MR. CUTTER: First of all, I think there is a myth comparing AT&T or Bell Labs with the CATV. Fundamentally speaking, one is from a central point to a mass audience. The other is a subscriber to subscriber service. The actual cost of the distribution system is relatively minor in the AT&T scheme. The primary cost is in the switching scheme which will be totally prohibitive if we try to identify the CATV with that. With

CATV, typically, we are talking about one hundred to one hundred fifty dollars ($100 - $150) per subscriber. AT&T is talking about fifteen hundred dollars ($1500.00) just to bring a voice channel to your home. So to compare those two, particularly like Professor Etzioni says about different levels of using five groups together, ten groups together and ten again, it is technologically not in the cards and the same thing I would say about the fibre optics.

DR. KAHN: Well, let me make a quick comment on that.

MR. CUTTER: Sure.

DR. KAHN: I had tried to make this distinction. I said that Cable TV has got two very separate paths in my judgment. The mass entertainment - point to masses as you describe it - very true. I will bet you there may be incredibly an equal amount of money invested in one per cent of their subscribers but fifteen hundred dollars ($1500) rather than one hundred and fifty ($150) - it is more than ten - I will bet you that it is more like two thousand (2,000) versus twenty (20) - a factor of a hundred, and that this one per cent of the subscribers, which includes things like hotels, professionals and so on, we are really very interested here in today, to some degree. I should not say that it is not fair. They are deeply interested in the two customers, the two markets, and this one per cent clearly affords switching for them.

MR. CUTTER: No question. But that is not for the so-called mass we discussed.

DR. KAHN: My point is I don't believe that this piggyback stuff and the coal back and the rye back.

MR. CUTTER: This is what I am trying to say.

DR. KAHN: It is very important for the mass with the single exception maybe of the shopping service kind of thing, and even that I think would be elite and upper middle class.

MR. CUTTER: Well, on the shopping service, it is quite misleading the way Professor Etzioni presented it. He said it could be piggyback on the so-called instant shopping. In my knowledge of most people, working on the instant shopping is a limited multi-choice type of response. No information of variable data. When he speaks of getting access, which means almost a communicative response, it cannot be piggybacked on it. I just want to make that point clear so that the decision-makers will have a certain amount of illusion about this cost effectiveness.

DR. KAHN: Let me add something which I don't think you will disagree with. If you are asking people to vote that, just to vote that that can be piggybacked on the shopping thing -

MR. CUTTER: No question.

DR. KAHN: If you ask them to "talk back" that is another factor of ten to fifty if not -

MR. CUTTER: That is right. This is what I am trying to bring out -

DR. KAHN: This is what I call a minor technical problem. (laughter)

MR. CUTTER: Back of the room over there, sitting down.

A PARTICIPANT: Bob Weiblen, Household Data Services. One obvious difference which nobody has touched on between Ma Bell and the CATV industry is the fact that Ma Bell leases the instrument as well as the communication means and the bandwidth for providing their services. Now there are good technical reasons why this might evolve within the CATV industry in that the operator leases the TV set. Now this would really be a case of the medium shaping the message and perhaps restrict a lot of services that we are all talking or thinking about. Would the panel care to comment on that?

DR. KAHN: Initially, I think it goes the other way. Many people would not be willing to put on a thousand or two thousand dollars capital but are perfectly willing to pay say twenty-five dollars a month for something very esoteric but the leasing is often the way of getting it in fast and easy. The problem with Ma Bell is that they have abused that leasing privilege. This is like the bundling of IBM. The initial technique was a good one but they used it long past the day when it was needed, you see, and I would suggest that you may run up on "bundle" right away. Your business of putting on attachments on all those sort of other things, because the taxes of getting a thing started and lost is often different from long term operating. You may want to give - I think it is good to get this thing in fast, that means that you have got to make profits and that raises the capital and the investment and everything else then everybody benefits from the early arrival so what I would like to suggest is that we want to keep away from the long term that you want to have unbundling, sales to foreign - you know - stuff, everything early in the game. You want to look at the accountant sheet before you make - you would make five or ten year monopolies in other words where they can skim all of the cream if you will.

PROF. OETTINGER: Yes, I think that that is quite different from an inherent vested right to allow no other attachments. I think you know - my view of this is what is pernicious is a franchise that precludes anyone from ever moving in. Now who does it initially and under what circumstances until a competitor comes along is another matter. I would like to interject another point which the gentlemen from New York City made before about paying for public access. There is something that the Chairman hinted earlier from history here also, and it is the history of libraries because there is a hundred years now, well over a hundred and fifty years of history on the free public libraries. A noble idea but one which is currently running into a great deal of trouble. There is not a library in this country, whether it is town or university or whatever, that is not in deep serious financial trouble. It seems very likely, hardly unthinkable to coin a phrase, to believe that the library system in the country will go down the drain shortly through sheer bankruptcy. Now there was a, you know a noble intention. We don't have a good experiment, at least that I am aware of, to the opposite where had it been charged for, would it be any different? But we do have one instance where free access has led to a great deal of difficulty and there is food for thought there.

MR. CUTTER: Yes?

A PARTICIPANT: Don Freedman from the City of Newark. It is the point you are making, Professor -

MR. CUTTER: Would you stand up, please?

MR. FREEDMAN: I am sorry. It is the point you are making about the library and the analogies that have come about the print media as compared with this medium that are somewhat confusing to me. I don't see that analogies as clearly - as a matter of fact, I did not see the print media. You spoke of it as being thought of as mass technology today and as being perhaps the means of access of information for mass users and it is precisely your last point about the dying library and our awareness that most people watch Bonanza, who watch television. That leads me to the distinction between the two. That is, I think, that print may be a great deal more (it sounds like: "taxinomic") and ordered in - much more tied up with control than the present access. Maybe that is what public interest is all about, just the sense of people will access information a lot more readily through television than they will through the print media and why we have to, you know, allow greater control - greater dissemination. Would you care to comment?

DR. KAHN: I agree with what you say. The very last remark; greater control does not mean a greater dissemination in my judgment. It means the exact opposite - that is the rapid development of technology, the investment of huge sums of money to bring it in will depend upon allowing profit making people to go into this area fast and move it fast. I see many examples of this. When I was working with the conservation agency, for example, they used to talk about the shortages of uranium and the absolute inability to do anything about it, you know, permanent shortages and then they would double production in a crisis. They don't have to if they don't have another crisis, and they double it again if they have another crisis, but they only doubled when people hit them. I remember pointing out that television had multiplied in factors not of two but of ten you know every six months, and I was not talking about the shortages of uranium or the shortages of skilled labor, or any other shortages. They just went out and bought the stuff that they needed, redesigned it and zoom. And it is very typical of this kind of a situation that people think that they are going very fast and under control situations but they are going like ten per cent of their speed, you know.

It is as if the automobile industry had been allocated so that everybody would have a chance to have an automobile. You know what would happen is that you would have produced a few thousand cars, put them up for lottery or something, you know, what I mean, it is that kind of thing. So just because the people who talk about control emphasize mass access does not mean that they are on the side of mass access. They are going to be absolutely dead against it. I will bet you that those negro neighborhoods will get high quality TV in much faster if you allow these profit making people to skim the cream of the market first, you know, and get into it big, develop the technology, develop the costs, improve the reliability, you know, and get the system cheap and get a lot of people into the business.

PROF. OETTINGER: And people mind it at the same time that the public libraries and so forth are in very deep trouble. Your curves on the dissemination of books and magazines in general are rising as steeply as everything else, and the paperbook books has reached a much, much wider dissemination than most libraries. So it was in this sense that I drew a parallel that you can reach. To think about Cable as if it was broadcasting, that you need a large audience, to break even is part of the difficulty. A large audience in the print media is like a two thousand book run that you can break even on. But that market is geographically linked together by the Post Office and that was the point that I wanted to emphasize in terms of this distinction between geographically local and community but geographically dispersed.

MR. CUTTER: It is also probably true that from the point of view of the engineer, information technology may be equivalent in their ability to transmit information from the point of view of the consumer. They are not equivalent from what you get out of a book and what you get over the television screen.

MR. PITMAN: I am Ralph Pitman from the Episcopal Diocese of Pennsylvania. What I would like to ask Dr. Kahn is in the face of what I agree is a pretty low level of public awareness about Cable communications. There are a growing number of groups within churches, schools, community groups who are asking questions and there are people like myself who are in the "in task" of cable education at a local level. And whenever you go to an event like this, the task of education about Cable - well, you think you had better not do any education until about 10 years but that is not true and as educators I am wondering whether you could perhaps articulate some guidelines for community education.

PROF. OETTINGER: Well, let me try to suggest one pithy message which grafts on some comments of Herman's. Let the people who are willing to risk their capital get it started, but just make sure that they don't walk away with everything because there is a short run and a long run and this to me - I think that unless there is a sufficient incentive for people to make money in short order nothing will happen. Nothing will happen and you know, you will be simply encouraging the broadcast over to the telephone company so, if you want some competition, if you want some alternate media, you know everything in history, as Herman suggested is right that somebody has got to make money and be driven to do it fast in some way. But the other message is, don't let them do it at the price of selling your rights for ten years down the pipe.

Well, I was about to say ten years should be about the maximum franchise. You have got to give the guy enough chance to make a lot of money back and a good way to do things like that is to give a twenty year franchise with re-negotiations at five, ten, fifteen years clearly spelled out. You know, the point is that the businessman does not care much about profits ten years from now. You don't drive out of his mind but boy if he gets to that ten year point, boy he cares about it, you know, and you want to have every encouragement in the short run and then in the long run you start getting windfalls or incorrigible practices, you know, like five, ten or fifteen years after he started in business.

PROF. OETTINGER: You want to turn over every stone that is labeled public interest. (laughter) You know it is in the public interest so it says to charge five per cent, ten per cent of gross for a cable system in order to pay something or other and then when you find who are advocating this public interest, you will find it is a competitor of Cable and then you sort of wonder and I would urge you to engender that wonder, that sense of wonder.

MR. CUTTER: I know that there are many more questions that could be asked but in order to get lunch in and get back here for the afternoon sessions, I think that we had better close up at this point. (applause)

AFTERNOON, WEDNESDAY, OCTOBER 18, 1972

SESSION THEME: REALIZING CABLE'S POTENTIAL

Session Chairman: W. Bowman Cutter

SPEAKERS:	William F. Mason
	Paul Vischer
	Ted Ledbetter
	Amos B. Hostetter
	Henry Geller

INTRODUCTORY TALK - W. BOWMAN CUTTER

MR. CUTTER: Because this session represents a somewhat abrupt break from that of this morning, I thought that I ought to try and give you a sense of the strategy of the Conference. We had hoped that the Conference would start with a general discussion of Cable communications, the broad meaning and impact of Cable Television and the environment in which it will develop.

Then we hoped this afternoon to lay out some specific cable issues - ask the admittedly much more limited questions . . . . . . "what does cable look like now?" and "what will cable look like in the future?" Hopefully, our session this afternoon will lay the groundwork for tomorrow's panels. In any case, I intend to do so explicitly by closing with a set of specific charges to the panels. Then, tomorrow in the panels, we will discuss specific Cable issues, hopefully in some depth.

Finally, on Friday, we will try to ask "why do we care if we get there or not?" Bill Gorham will talk about the impact Cable may have on urban life and a panel of city officials will then discuss his presentation.

There is - as everyone is surely aware - an extraordinary difference between what Cable is today and what we think it will become. To mention what is already in your program, Cable Systems today are generally small, in small towns and medium-size cities. Tomorrow, they should be in the largest urban centers in the nation.

Cable systems today are generally one-way. Tomorrow, we look for much larger capacity and for two-way systems.

Today, there is very little public or governmental usage; tomorrow we look for a great deal of such usage.

What we would like to do this afternoon is to plumb some of these differences, some of these changes. Each member of the panel will discuss a specific area under three headings - what his slice of Cable Television will look like ten years from now - what it looks like today - and what are some of the intervening difficulties, problems and constraints.

Participants, in order, will be, first, Bill Mason, Technical Director of MITRE, who will discuss and describe an Urban Cable Television System ten years from now. Second, Paul Visher, Group Executive of Hughes Aircraft, will discuss where we are today in regard to types of possible services and what pays off and what doesn't. Third, Henry Geller, Assistant to the Chairman of the FCC and Former Counsel of the FCC, will survey the emerging regulatory pciture and try to give the sense of Federal regulatory patterns ten years from now.

Fourth, Bud Hostetter, Executive Vice-President of Continental Cablevision and Vice-Chairman of the National Cable Television Association (NCTA), will discuss the emerging Cable industry - what it looks like now and hopefully what it will look like in ten years. Finally, Ted Ledbetter, President of the Urban Communications Group and President of Transcommunity Broadcasting, will discuss what all this may mean. Bill?

MR. MASON: My job is to describe what a cable system could look like ten years from now, and to give a sense of focus to the discussions which will follow tomorrow. Our idea here is to avoid having the Conference disturbed each time there is mention of some new service that hasn't been mentioned previously. We will try to assemble all the new ideas into one system definition at the start. My system description will be non-technical, as promised, but it must describe the technical framework for the discussions we are here to participate in. The Urban Cable Systems Report that we distributed to you describes the system of the future in detail. The report presents an evolutionary strategy to reach the ultimate system. In other words, what I am going to describe to you is a system we believe could exist in five or ten years. The Report gives the details for getting there.

What I am going to present is a picture of how cable will look after we have interactive TV. On Friday morning, we will show you the current "state-of-the-art", so to speak, for interactive television, which is the key technical capability to everything we want to discuss. To have the capabilities we are about to describe, we need almost a hundred percent "penetration". This presents the first big problem, which will be addressed by several panelists in different ways: to get the kind of services that I would like to describe, everybody has to be connected to the system.

The system of the future would definitely have the capabilities that Dr. Etzioni described to do public polling, enable public interaction, and provide a new kind of public forum. It would also provide the great number of special interest programs that Dr. Oettinger referred to, analogous to the special interest magazine for the tennis enthusiast, the golf nut and so forth. The "communities of interest" around the nation will have a common communication service through the multi-channel cable systems that will be interconnected in the future.

Now, I would like to present you with a few slides - one of each type of capability we think future systems should have. First, we have interactive television. We will be having a demonstration of CATV Friday morning; first, let's take a look at the list of services we have been demonstrating in Reston. Next - I'll describe the police, fire, and traffic control type of functions that we have designed into the Washington System and then a few "special network" capabilities between schools, banks and so forth, and finally a few of the more exotic ideas on "vehicle locators", automatic mail handling, and bill paying functions.

The first slide shows the system that we have been operating in Reston whereby a person can use a phone call to call for certain personal services via his TV set.

This is the table of contents for the Reston demonstration that most of you have seen. It is the Master List of what we have in the TICCIT Data Base.

Take for instance, Community Information Services. You push the button on your phone identified by this list to get the services you want. The system can give advice in medical emergencies. It also contains some news, sports and weather options that various people are interested in. There are a number of recreational programs, some games and

FUTURE CABLE SYSTEM SERVICES

- INTERACTIVE SERVICES TO HOMES
  - TRANSACTIONS: SHOPPING, APPOINTMENTS, BANKING
  - GAMES & GAMBLING
  - FORMAL EDUCATIONAL SERVICES
  - DATA RETRIEVAL: YELLOW PAGES, LIBRARY SERVICES, ZONING/TAX DATA
- POLICE, FIRE, TRAFFIC SYSTEMS
- INTERCONNECTED SCHOOLS, BANKS, SOCIAL SERVICE OUTLETS
- ELECTRONIC MAIL/BILL PAYING
- WIDEBAND INTERCITY

gambling ideas, things that might be attractive in a commercial system. Then there is some financial news - ability to research particular stocks in addition to monitoring the market or any specific investment portfolio you might want to examine. Information is available in computerized form.

Now I would like to talk about some of the less well known possibilities of cable. We have selected the City of Baltimore as a typical large city to portray how some of the services that a city provides could benefit from Cable if it were efficiently and systematically designed. First, consider the police call boxes that any city has. I will give you some numbers later, but this picture shows roughly the kind of density you would see for police call boxes which would be interconnected by Cable. If you are interested in the details, the specifics are worked out in the Cable Systems Report that you have.

For fire call boxes, it is almost as dense. In a cable situation, fire alarms would probably come from many more discrete points, and would be generated automatically, rather than via the old firebox call system, which is already being replaced. Let me just point out to you that there are large scale electronic systems already being installed for Government experiments which involve the use of home addresses for every home in the city. MITRE is working on such a system in Haddonfield, New Jersey, where home addresses are held in the computer for purposes of controlling a taxi-like bus. This is sort of a forerunner to the data processing capabilities needed to identify fire calls from houses.

Here we show you a few statistics for Washington, to show you the tremendous numbers of fire and police box locations needed in a big city. Along with it is a list of some cities that have computerized traffic control systems, where the traffic lights are controlled by computer to maximize the traffic flow. This list illustrates how these systems are emerging. We have one being built here in Washington. Then we show you the use of distributed receiver stations in a city of the future, to help identify the location of vehicles. Such systems are called automatic vehicle monitoring systems and several of them are now under test by the Department of Transportation.

These types of systems will be needed to support the fast home-delivery service that would be vital to any electronic shopping system. Next is a list of Cable contractors who are developing automatic vehicle monitoring systems equipment. The next slide presents the concept of interconnecting schools, banks, etc. We have used several colors here to show this idea. Finally, this is an idea of how all these nonresidential users can be interconnected to take advantage of the Cable capabilities.

Now let's briefly review the barriers that are involved in getting to this future, by way of an introduction to the issues we must face. For the interactive television, the services themselves are one barrier. If we had something marketable, we could get going, because technically we are ready. Some cable operators are even ready to implement two-way capabilities without knowing just what services they will eventually provide.

WASHINGTON, D. C.

1800	FIRE CALL BOXES
969	POLICE CALL BOXES
1800	TRAFFIC SIGNALS

SOME CITIES WITH COMPUTERIZED TRAFFIC CONTROL

- LONDON
- TORONTO
- GLASGOW
- SAN JOSE, CALIF.
- CHARLESTON, S. C.
- NEW YORK CITY

COMPANIES WITH AUTOMATIC VEHICLE LOCATING SYSTEMS

HAZELTINE CORP.
GENERAL ELECTRIC
BOEING CO.
TRACOR
McDONNELL DOUGLAS
TELCOMM
JPL
RAYTHEON
SANDERS ASS.
AIL
SYMETRICS
LITTON
MARTIN MARIETTA
SYSTEMS, SCIENCE ON SOFTWARE
INTERNATIONAL ENGINEERING CO.
CARDION
MOTOROLA
SYLVANIA
ELECTRONIC COMMUNICATIONS INC.
RADIATION RESEARCH ASS.
TEXAS INSTRUMENTS
REPUBLIC ELECTRONIC
MAGNAVOX
WYLE LABORATORIES
BATTELLE
TELEDYNE
SPERRY
FAIRCHILD
ASTROPHYSICS
COMPUTER SCIENCES

CONTRACTS

CUBIE CORP.
SIERRA RESEARCH CORP.
RCA
TELEDYNE SYSTEMS

BARRIERS

- INTERACTIVE TV
  - SERVICE CONCEPTS
  - EXPENSE OF LARGE SCALE DEMONSTRATIONS
- POLICE, FIRE, TRAFFIC SYSTEMS
  - STANDARD OPERATING PROCEDURES/PHASEOVER PROBLEMS
  - FACILITY CHANGEOVER EXPENSE AND TIMING
    - EVOLUTION PREFERRED TO REVOLUTION
  - CAPITALIZATION (ESPECIALLY IN REDUNDANT PHASE)
  - TECHNOLOGY
  - MOTIVATION (NO ENTREPRENEURS)
- INTERCONNECTED INSTITUTIONS/ORGANIZATIONS
  - INTERCONNECTIONS AND REGULATIONS

For the police, fire and traffic systems, the main barriers have to do with changing the way people operate, changing old procedures to take advantage of these new capabilities, countering the idea that no sudden change can be implemented in a police department or fire department, etc., that all changes must evolve slowly. The "extra" expense during this overlap period, of an old and new system, is a major problem with which we have had a lot of experience in military systems, but which is much worse in city systems.

Equipment and cable technology are not all that perfect that we can avoid listing them as barriers, but we have in the report, a black box to serve every function that I have alluded to in this briefing. So we know that technology is not a major problem. Getting the price down is something of a technical problem, but here again, our studies indicate that the economics are not inhibiting if we manage to handle the other barriers.

MR. CUTTER: Paul Vischer will now try to give us some sense of services over the Cable that are either commercially available now or can be in the very near future.

PAUL VISCHER: Thank you, Bo. I have a few slides to sort of show where Cable is today. Can I have the first slide? . . . (laughter) We have to look at this slide in really two dimensions. The first is a television market and as you can see, the Cable system tends to be in the largest numbers towards the smaller television markets. Now the most interesting ordinant is the ordinant on the left which shows what percentage of penetration Cable has in these various markets. Now you will notice that there is a very sharp slope-off towards the right from the left where in 200 of the smaller markets you see many cable television sets and there is a .4, .5, .6 kinds of percentages - as you get toward the larger markets, fifty and under, you are operating down at the .1 level. I think most people in the Cable business recognize you have to have twenty-five or thirty percent penetration in order to have an economically viable system.

This is a purely pragmatic chart showing it as it is today, showing where the economic forces have taken the market and taken the Cable systems. Let us try to understand why Cable has gotten to where it is at this particular chart. The next slide?

A PARTICIPANT: What does ARB stand for?

MR. VISCHER: That is the American Research Bureau Market Size. That is like a census bureau district. It goes around large cities. It is a television market research element. Now to try and understand and to try and put some numbers around what had been the motivating sources behind Cable - we tried to look at what was the present value of programming - the amount of investment in programming, which tends to drive the market place the way it did. I think it is quite interesting to note that if you go across to Canada, you will find there in Vancouver, in Ottawa and Toronto you will find the largest Cable Television Systems in the country, in the world, in fact, and in a percentage of penetration and what they have done is to tap into the U. S. programming market.

Each year the television industry turns out about a billion dollars of programming, plus or minus a few hundred thousand - or a few hundred million - and in addition to that current programming, you have programming which derives from the motion picture industry. Now we have tried to put some numbers on this and we have gone to the New York and Los Angeles markets and in those two markets there is about as much audience viewing from past production of the motion picture industry as there is in current production of the present networks. So we have made that an equivalency - there is another billion dollars essentially of programming content available on an annual basis so that essentially each year, there is basically about a two billion dollar program content available for the viewers and now let us look to see where that programming content presently is being shown.

The black line is a basic over the earth service. You see that is almost an inverted curve from the curve showing where Cable Television systems are. You see that where people have a large percentage of both the current broadcast network, the billion dollars plus the billion dollars of motion picture product, you find a very small penetration of Cable where those numbers are small which is over in the left hand side, the two hundred market - you see their Cable is - the people in those areas are trying to get access at that two billion dollars of programming content. Now just to see what the present report and order has revised a rule that came out recently does to that - you see it has very little actual impact particularly as you go below fifty - the amount of additional dollar of programming content available for these top fifty markets is quite small. So we anticipate that the revised report will have very little impact below fifty.

Now at this point we sort of have to look to see what it is that can make Cable grow in these areas for which there is already a large content, video content, available from the networks or a large video content available from the independent stations. We have to look to different kinds of services. I would like to talk about that especially. I think that's it.

I had one more chart that merely showed where the population was and which showed that the population - that about three-fourths (3/4) of the population is in the market served by the top fifty. So essentially where all the people are right now - where Cable hopes to serve - none of those are in an area for which the existing over-the-air service provides much hope of any significant additional contribution to their video choice.

We have tried to look at the market to understand it - to look at the various communities of interest - certainly the nationwide market is this over-the-air network service. There are other types of nationwide service which we believe have the potential which are various kinds of specialized services. Now these are both distribution functions that do not depend upon having a two-way system of any kind. In addition to that, we see a whole series of services which do require two-way capability - local access, local shopping, the list which we had Bill give just a short while ago. We have looked at that information in an initial market point of view. Where is the present pay-off? We don't see any way to get from this present chart on where Cable systems are because those Cable systems are all one-way systems. Anybody looking at it from a business point of view has got to see what can Cable do today and find a business path to take him from today into this world of ten years in the future.

So we have tried to build a scheme, look at a market place, understand the market place, first seeing how we can gather together specialized audiences in a nationwide sense, which would permit us to use essentially the existing one-way capacity. So I think that our initial interest from the satellite point of views at least was to find out how a satellite can help collect and gather together these specialized minority audiences. There are interested in very special projects around the country but which in no one place is there a large enough audience to justify significant activity in the local programming area.

We have done - this morning's speaker talked about if you have forty-one channels versus forty channels, you are going to have junk in the forty-first channel as well as the fortieth. I don't think our market research justifies that proposition. We have done about five different market researches. I think that the interesting thing that we have found is a very significant difference in the viewer interest or potential viewer interest in the past homes versus the non-past homes where the Cable community, particularly those in the larger cities, are dealing with twenty-five, thirty per cent of penetration area. That means that three-fourths (3/4) to four-fifths (4/5) of the people who are in - who have the opportunities of subscribing to Cable that don't subscribe to Cable and we have gone back and investigated that group quite carefully to understand whether the lines are parallel between those have had the choice to subrcribe from those who didn't subscribe.

I think the interesting thing we find is that of the people that presently are Cable subscribers about eighteen per cent of that body would like to have more movies. Now those people who are not subscribers, those who are in past homes which is roughly three-fourths (3/4) of the population, only about eight per cent (8%) would like to have more movies. We found a very sharp cleavage between the audience which is in the past home versus the audience which was in the non-past home. The audience that subscribes versus the audience that does not subscribe.

Sporting events - about fifteen per cent of the people who are presently subscribing to cable in areas which have this lower penetration would like more sports and only seven per cent would like to have more sports of the people who have not made that decision to subscribe to Cable. It would appear there that sporting events and movies insofar as these tend to be high cost products - you have to pay a pretty good price to get them - would tend not to be an attractive initial penetration.

Now we go to opera - now I am not sure after Herman Kahn's speech this morning whether or not I want to admit to opera or theater or ballet (laughter) but at least there does appear to be a small percentage-perhaps they are not the important percentage but they do have money and they would like some opera. In the past homes area, that is people who did not subscribe, only four per cent want opera - but in the people - I am sorry that people were on Cable, only four per cent wanted opera but the people who were not on Cable, about eight per cent wanted opera. The same is true of theater. Only about three per cent of the people who are on Cable wanted to have theater but eight per cent of the people who were not on Cable would like to have it.

We then tried a series of cultural how-do-you-do-it's. How to weave? How to paint? How to sculpt? Things of that type, and the viewers who are presently watching Bonanza was the cue this morning. Only five per cent of that group would like to have these cultural how-to-do-its. They enjoy Bonanza, they enjoy the beer. I am not critical of that but there are about twelve per cent of the population in the areas which have the opportunity of enjoying Cable and who have not joined Cable who would like to have access to that kind of product.

So we saw quite a marked cleavage in the audience interests. People who were happy with what they are getting, happy with this two billion dollars of content, happy with the movies they are getting, happy with the sporting events the broadcast networks are getting. But yet we have found in this other body, which is three-fourths of the population, a fairly large "disenfranchised" group of frustrated viewers who would like to have a broader choice than they are presently receiving.

From a business point of view, there appeared to be then a - if we could collect these audiences nationwide, the five and ten per cent in Chicago and in New York and in Iowa and in Montana, Los Angeles - collect those people together and have a cheap enough distribution system and a cheap enough collection system, we could perhaps get enough money from the audiences on the subscriber basis to make a viable business. We first tried to avoid the question whether or not you had to have an independent pay scheme. If you had a product which had a sufficient social value - opera, theater, ballet, - you might be able to add a dollar per subscriber and make it be a general charge and here we have found an interesting thing verifying Herman's speech this morning, about twenty-five percent of the population wanted to have no part of any of these services. They were a very vocal, eloquent, voter body that felt that if somebody else wanted culture that was their business but they wouldn't pay a dollar more to receive any of the products of opera, ballet, theatre, or cultural enlightenment.

That meant, from a political sense, we almost had to find a way to separate those who wanted to buy and those who did not want to buy. We would have preferred, from a business strategy point of view, to avoid the problem of putting in a black box but we found this very hard core, which would give very vocal opposition to such an increase in the service rate to cover these kinds of costs. Perhaps you could put them on a tax base. I don't know, but I would guess that this opposition to being charged more for things it didn't want, and this would be politically a very difficult thing to have.

So that twenty-five percent became a hard block against making any more - any simpler technical solution, which is just basically to charge an overall price for additional service. We then tried to test the market sensitivity. How much could you charge for an opera service - say four operas a month - say four plays a month or perhaps a course on painting which would last for say five months - perhaps two hours a week? We found it interesting that if you are dealing with people who have well-defined interests, they are quite price insensitive. An opera service between two dollars, four dollars, six dollars, for a month's service say of two, three or four operas; these numbers were all small enough where we lost very little audience in going from two dollars to six dollars a month, if you gave them four operas. The person who wanted an opera and who got four operas for the price of six dollars - this seemed like a very good buy to him.

So we also checked this out on cultural hobbies - we found about the same pattern - between two dollars and five dollars a month. We had very little drop off in audience interest. It is a pretty price insensitive product as long as you keep the numbers in this general range. The "disposal" income that we have for these kinds of interests is large enough among the audience we were investigating to indicate that you probably could put together a small specialized audience collected around the country and charge it two, to three to four dollars a month, if you could find a way to collect that money.

Now we also developed "edits" for theater and for various kind of adult education such as Spanish courses. We had a list of about a hundred and fifty different potential service areas that we were going to try and investigate in case the FCC authorizes our application. We found in the service area, in a collection theme technique, that if you tried to go on impulse buying the cost went up by a factor of five to ten - in case you tried to let the man make the instantaneous decision - do I want to have this opera service tonight - that cost you about five times as much than if you say you would like to subscribe to the service. In other words, the actual technology which would permit you to subscribe to the service on a monthly or quarterly basis is about one-fifth the cost of the technology which would permit you to make an instantaneous impulse decision. I would like to see this tonight and something else tomorrow.

So in our initial phases we will not try to service the impulse buyer. We are trying to stay away from this fairly high cost, two-way, interactive system because of the large amount of investment that would require us to go through and develop that market place.

So we have now looked at four different technologies in parallel, looking at ways to scramble and unscramble - I think we have four different teams working simultaneously on getting the lowest cost solution which we can find a way of putting a key in - a key like a card. There are various technologies we are working on - some digital, some analog, but we are quite confident we can find a way to scrable and unscramble on a controlled basis for perhaps ten percent of the bill. That is, for a two dollar bill, perhaps twenty cents, will be allocated to the cost of scrambling, billing and unscrambling. The normal box office is about fifty percent - so we can get our economic control cost down to ten, fifteen percent. We think we have a viable business proposition in this area.

So the users' file of the FCC for the satellite system is designed to try to put together some of these very specialized audiences. We are working on the technology which would permit us to collect very special interests, such as opera, theater, ballet and to go and bill on these kinds of things on a monthly basis.

We can all speculate where it is going to go from here. You heard this morning some of the uncertainties involved. From where we sit, and the uncertainties we see in trying to validate these various market research studies we have, I tend to believe we will probably see several cables. To try to put it on one cable is technically an inappropriate solution, that is to try to go through one black box which is complicated enough to handle all the kinds of services. My guess is that we will see several different black boxes, at least during the early phases because the black boxes will have different kinds of requirements. We will see several kinds of cables. If you are dealing in the business, you are talking about several billion dollars a year. The cable itself is a very small percentage of the total capital investment, both in the control, the billing and the collection scheme plus all the software. I think to have the Cable system dominate the software is an inappropriate balance at the present time. My intuitive judgment is that ten years from now will see not one avenue of the home but four or five or six collection schemes. The water pipe doesn't carry the gas, the power comes in both by gas and by electricity, the home has a whole series of entrance points to it. There is nothing in the technology sense that says that they all have to go through one particular cable.

So I guess if I were to speculate, I think that if we were to look back and watch ten years from now, we would all be surprised, including those at this table, how it all will turn out. I think we have to give a large measure of freedom during this first five or ten year phase to let the thing evolve, to let these markets be tested, to let the customers make decisions. But the technology could only evolve. I guess that is the only thing that I would hope for, that we set up a system which would permit this to happen. Thank you. (applause)

MR. CUTTER: Whether a lot of this happens or not obviously depends crucially on what happens in the regulatory sphere. And Henry is now going to try and give us some sense of what is going to happen over the next decade in Federal regulations.

MR. GELLER: One of the problems here is that a great deal of what will happen will depend on the nature of the beast, and that we really don't know. Not only do we not know that, but if you go back to the saying on the Archives Building that which is past is prologue, our track record isn't too good here. So that I want to start with the disclaimer that you shouldn't pay too much attention to what I am about to say. (laughter)

I will go over the past, and then I will get on to the present and the future and try to give you an indication of where we think the Federal regulatory pattern will go. Ten years ago, we were grappling very heavily with cable; at that time, cable was in the small towns where it still is so dominant. The battleground then was Riverton, Wyoming, Rapid City, South Dakota, Kalispell, Montana and the issues were carrying the local signal and not duplicating the local network programming with it local adjacencies. The issues were very bitterly fought out.

We resolved them by requiring carriage of the local station same day non-duplication protection for its network programming, and by later development called anti-inundation - by restricting the number of distant signals that can come in to three networks, one independent, so that the local isn't swamped. And then we sat back and thought we had the problem licked; that that was going to be the regulatory pattern for the next ten years. We had a lot of company. If you talk to some network companies, they also said the cable just can't operate where there are three off-the-air network signals; I don't know how they would explain San Diego -- poor reception, I suppose.

The point I am making is that we were wrong, that the regulatory pattern for the last ten years and for the present has been cable in the major markets. Now, how can we integrate cable fairly into the major market situation? Here again we were wrong in the beginning when we grappled with it. We thought that it would be settled by the market place -- specifically by the application of copyright law to it. And we had a lot of company there. Everybody thought cable would lose in the courts on this copyright issue, with the result that cable would have to stand and bid for its programming in the major markets and in the minor markets would get speedy Congressional relief in the form of a compulsory license. In 1968, in the Fortnightly case, we learned that that was a mistaken notion. We had "frozen" cable in the major markets during these years of waiting for the Fortnightly decision.

In '68, we realized it was our job. We turned to it and we made a proposal called the retransmission approach. It was in effect an effort to bring back the market place. Cable would have to get the consent of the copyright owner since he is the only one that can give the retransmission consent. That was coupled later with the proposal in Docket No. 18179 that would have given cable a very fair shot at getting programming product. It would have opened up the non-network market to the cable operator on a very reasonable basis.

That retransmission proposal did not fly. Cable operators we have learned - Bud can tell you - really want distant signals. They are used to operating with the distant signals and they only want to operate with distant signals. We made another proposal which was rather imaginative called commercial substitution. I won't go into it here. It would just be "a frolic and detour" to do so, because that didn't fly, either.

Our resolution of the matter was along the old lines I talked about earlier in the smaller markets. The 1972 rules consist of defining what the local signal is and permitting carriage of the three networks, three independents; in markets fifty-one to a hundred, it is three, two. And the 1972 rules provide non-network, non-duplication protection that varies with the market. It provides run of the contract protection, which is very extensive, and a one year pre-clearance period in the markets one through fifty, and in markets below that, it provides very modest -- indeed minimal -- non-network, non-duplication protection.

I understand that I am using terms that many of you know very well but that others may find quite technical. But in the short time I have, I hope to give you just a "feel"; if you want to ask questions about it later, you can do so.

If our solution in 1972 was along these tried and true lines, I want to emphasize, however, that the "game plan" is different in these 1972 rulings. Below the top one hundred markets, we simply want to get needed service into these communities by the provision of distant signals.

In the top 100 markets, we are not that interested in distant signals. True, the fight is about them and that fight will continue. But as Chairman Burch has said, he wouldn't cross the street for cable, if it were only a matter of distant signals; it just isn't worth the effort. You wouldn't be here today, if cable was only about distant signals anymore than you would be attending a translator conference. The name of the game here is the provision of the new broadband services that you have heard about from Mr. Mason. And the reason for the distant signal provision is that if cable operators say they need it, we said, "All right, we will give you enough so that we hope to get you substantial penetration to get going but we want to leave you lean and hungry and make your success depend upon the provision of the new broadband services."

I should also stress that while we are not sure, we do believe that our plan for cable is a sound evolutionary one. Under our plan, the next big cable push will be in the markets fifty-one to a hundred. That is unlike broadcasting which, as you know, started in the top markets and then fanned out to the smaller. Cable development has been from the smaller up. We think that the next large use of capital here will be in the markets fifty-one to a hundred. These markets for the most part lack independent services. Only seven of them have independent stations. As you can see also, our non-duplication, non-network protection -- which may be a significant operating hindrance to the cable operator in the top 50 markets -- shouldn't be too much of a burden in the markets, 51-100.

Now there has been some criticism of that on the grounds that we are doing it backwards -- that we ought to focus on the larger markets. But in those markets there is an enormous amount of programming already available, making cable's development more logical in less served markets. In any event, above all, we wanted to resolve the fact that cable stands outside the competitive TV programming market. It does not pay for its product. That has always put a cloud over cable's operations. The cloud is not even settled today. There are pending cases, particularly the TelePrompTer case. We don't think an industry can be built upon a shaky foundation where its product is in doubt. We made a major effort to resolve that in the Consensus Agreement of November, 1971. The copyright owners get seventy-six percent of their revenues from the top fifty markets, and therefore, the bargain struck to get this consensus agreement protects the copyright owners in the top fifty markets by giving this run of contract non-network, non-duplication protection.

On the other hand, they don't need protection below the top 50, so that is why there, they get minimal non-duplication provisions. We are hoping through this consensus to get copyright legislation enacted -- for once and for all time, put cable on a secure foundation. It will have passed the critical corner and so far as its need of distant signals is concerned, it will no longer be under a cloud. Now I say this is an evolutionary plan, because if we are right, if cable does come to Peoria and San Diego and Jacksonville and scores of other markets and millions of new subscribers, it is going to move on into the top markets. You can't have a nation that has a cable in hundreds of markets but not in the top ones.

We have not written off cable in the top markets. Cable there will get some distant signals and even with the extensive non-duplication protection, that may give them something valuable, particularly in the sports area. You heard Paul tell you that people are very interested in sports, and the sports being made available on distant or overlapping signals may mean something to them. The additional movies mean something, as you heard, in a lot of these markets. Eleven of the top fifty have no independent stations and there is thus a great number of programs that are not sold there. So even if you give this extensive non-duplication protection, programs will still be available in such markets. In thirteen of these top fifty markets where there is only one independent, there is a lot of programming "that is not sold", so it also will be available to cable.

Furthermore, in these top 50 markets, you can sell good reception of UHF, of color, -- indeed, some of these markets have very difficult reception problems with even the VHF. Above all, there will be the provision of the new service that you heard about, I think here you will see considerable movement. The FCC is considering removing some of the restrictions on "wire pay TV," particularly in the area of movies available on pay TV.

Cable has already shown a great deal of initiative in carrying the home games of the Knicks, the Rangers and so on, and with the network that Paul refers to, you can have networking of cable fare; this should be a big benefit.

This last matter points up the regulatory difference that we have with some others like OTP -- specifically over the argument that cable should be a common carrier, and should not itself be a provider of programming services. In theory, there is just no dispute about that. It is clearly right. There can be conflicts; abuses can result. Bell doesn't engage in programming services and in a logical sense cable shouldn't do so either.

The problem is that to quote from a famous case in the communications' field, "Legal theory may be one thing but practicalities are another." Cable is a very difficult risky business in these major markets. The cable guy is willing to take the risks of putting on non-broadcast programming. If we say no to him, that he has to sit back and wait for some outside entrepreneur to knock on his door with this new programming, we are afraid that we will end up with a beautiful legal theory and no cable in these large markets. So that I think what while we will evolve to a point where we phase cable out of doing its own programming services, that is in the future.

Now when we do that, we will be left with all the services that you have heard about from Mr. Mason -- the marketing service, the burglar alarm, the educational channels, all of those using cable's two-way capability. That is all background to get to where we will be ten years from now. I have to assume that our "game plan" will work. Maybe that is an act of faith, to be taken with a grain or perhaps ton of salt but I must assume here that it will work. I think that it will be slower than people say, and we are sure making that slowness true (laughter) because of our backlog problem that we have to solve here. I think the States will contribute to this slowness by their franchising process and indeed this particularly will be a slower process than people think.

If we are right, though, ten years from now we will not be talking about distant signals. That is all going to be thrashed out in the next five years. It will be a very difficult thing but in the certificating process of the next five years, we will end the distant signal problem.

If the cable trend is not what we think it is, if it doesn't work out, you may see revisions here. We can change the definition of a local signal. Instead of a two percent share of an audience for an independent station, we can make it one percent; I think that might come if cable does not flourish with the number of distant signals and local signals we have given. We can change leap-frogging requirements. I don't know how many of you know what that is, but we can give cable more leeway as to where it goes to get its signals. We can change the non-network, non-duplication protection. Thus, in the markets fifty-one to a hundred if we think cable is not developing fast enough, we can eliminate all non-network, non-duplication protection, without any substantial detriment to the copyright owner.

I don't think we are going to add distant signals because if the consensus agreement holds firm, this aspect will be embodied in the new copyright law -- that no compulsory license will be given for additional distant signals. If the consensus agreement does not hold, all bets are off and a lot of avenues are open.

I think we will not be arguing about copyrights. At least I hope not. As you know, this has been plaguing us for all these years. So I would hope it would be finished.

I think it will come at the end of the next session of this next Congress -- that is, at the end of 1974. I don't say that lightly -- obviously, it will be a very difficult thing. But it will come then or not at all. If it doesn't come off the dice are going to be thrown on the TelePrompTer case, one way or another, which I think will be unfortunate. I don't think, as I say, that we will be arguing about movies on pay-TV. I think such matters will be settled next year.

But we will be arguing whether or not cable is successful and effective under this "game plan" - on whether we should be phasing cable out of its own programming operations and making it a common carrier. This may affect the multiple ownership patterns, including the cross-ownership one which also may be settled next year. I think we will be arguing about access as programming into the home. There will be arguments about obscenity on the public access channel, about the movies, about home games of sports like football games. There will be arguments of that nature and I think they will be resolved on a Federal basis. I do not think they will be left to a patchwork of local regulations. I believe that we may have some arguments about rates, not rates charged to subscribers but the rates for some of these access services. At the present time, we leave that to the market place. Cable has every interest in making its services available as cheaply as possible.

If cable is successful, there may be arguments about whether there should be regulation of such rates. Now maybe there will be a Federal preclusion of this, maybe there will be a Federal guideline with the States implementing it, but I think that ten years from now there may be a problem in this area. That last points up also the interrelationship between Federal and State which is a mess and will continue to be a mess. I myself think it will evolve along the lines of the Massachusetts-New York picture and that cable will have to run a tripartite gamut here of Federal, State and then local. The cable entrepreneur shudders when he think of such regulatory thickets. I think it's coming, though.

As to how these problems are resolved, my own view is that you will see no Federal legislation here. It's not that it's not needed, it's a big and important new subject and Congress clearly ought to legislate it. The difficulty is that there are enormous pressures here from the industries involved. No legislation has been possible and I don't see any way of its being possible in the future. I think it will be left to the ad hoc resolution by the Commission. The Commission will get input from the States, input from advisory committees, certainly input from the Congressional committees that are interested. But I think it is going to be left to Commission resolution. Again you can argue that that is not the best way to do it, but that is what I see coming.

I think the worst problem of all is that ten years from now we have no problem here, because that would mean that cable has not been successful. That would be a great pity in view of the benefits that it could bring to the American people as you have heard from Mr. Mason. That is a very rough overview of where I see we will be ten years from now. (applause)

MR. CUTTER: Bud is now going to attempt to give us a summary of what he thinks the industry is going to be ten years from now.

MR. HOSTETTER: Bo, my one condition on taking this spot was that I was to be properly introduced and you have blown it! (laughter)

The introduction was to reference the fact that this is David Foster's seat on this panel. I innocently walked by here at 12:30 and forgot to say no when I should have. Simply stated, that is the reason I am here. I couldn't do much in a hour and a half, so my comments are poorly organized. I intend to give you fair warning for I find when I am poorly organized, I generally tend to run too long. With this in mind, I'll try to keep it short.

I am amused, and this is an aside, by Henry's comments on the chronology of FCC thinking and regulations for cable. Over the last ten years, I can recall having had Henry convince me beyond doubt that each one of those propositions was fair and reasonable and was going to work. (laughter)

MR. GELLER: They would have worked.

MR. HOSTETTER: So I want to tell you that in my mind the evolution of Commission thinking is the evolution of Henry's thinking. (laughter)

I was scheduled to be on a panel tomorrow which was to discuss future applications of cable, a session for which I might add I am equally poorly equipped. It caused me to go to my Bartletts Famous Quotations to find something appropriate on the future. Having listened to the group of very erudite gentlemen this morning and the group which preceded me, I have a quotation in my pocket that is perhaps appropriate. It would best be ascribed to Will Rogers, but that isn't right. It happens to be C. S. Lewis out of the "Screwtape Letters" and his quote is: "The future is something which unfolds to everyone at the same rate; whatever he does, whoever he is, the rate is sixty minutes an hour, twenty-four hours a day." (laughter)

So with that equalizer, I feel that I can begin. I've been asked to comment, from the operator's point of view, on what the industry is today, what it might be ten years from now, and what I would call the stress of transition.

I would like to keep the tone, as this morning's session was, one of thoughtful certainty about the balance of planning and entrepreneurship which is likely to produce the most socially useful results. I would like to avoid the sort of Neanderthal assertions that often occur when the people wearing their public interest, social planner uniforms confront those wearing capitalist entrepreneurial uniforms, and we all swear and yell and label each other "egghead" or "money grubbers". I think the general effect is far more to drive us apart than to bring us to a consensus.

In the final analysis, we get to some very subtle questions which relate to motivation. What constraints, if any, must be imposed to insure society that the entrepreneur is motivated in a socially constructive way? If your own subjective bag is that there is no way to do that, then we are left turning it over to the social planners. I believe there are middle grounds.

For my part, I am willing to refrain from using the "egghead" label and to concede that the social planners can get things done in the real world. I hope they will concede that I can do things in a socially responsible way and that we must somehow join those forces, using the best of each, to come to a plan for cable that is both economically viable and socially justifiable.

I will try to be brief on where Cable is today. I think the program pretty well summarizes the kinds of markets we are in and the kinds of services we are offering. It may be a little weak on one dimension, the institutional structure of the industry, today. The average Cable system today has two thousand subscribers. If you express that in terms of gross sales, that is a hundred and twenty thousand dollars a year. I would venture to say that, regardless of what town you are from, there are three supermarkets in your town that do well in excess of a hundred and twenty thousand a year in gross income. In fact, probably five percent of the U. S. population reports greater income on their personal tax returns.

The largest single cable company has six hundred thousand subscribers which means their gross income is in the range of thirty-six to forty million dollars. There are roughly three companies in that range. The industry in total has five million subscribers. Therefore, we are talking about a total industry that does three hundred million dollars in sales. If my recollection is right, and I looked this up once in "Fortune's Five Hundred," there are three hundred and thirty-five individual companies in this country with sales volume of more than three hundred million dollars. So we are talking about an industry in which the aggregate sales of all systems, all companies, is smaller than three hundred and thirty-five existing individual companies in other fields.

Related to concentration as it exists today, the largest operator has about 10% of the market -- the largest three probably represent about twenty percent -- the top twenty-five, fifty to sixty percent -- and the top fifty, perhaps seventy to seventy-five percent of the market. Are we in imminent danger of abuses arising from concentration? Let's look at the telephone industry. The Bell system controls eight percent of the national telephone; it has about twenty billion dollars in annual revenue; seventy times the revenue of the total cable industry. I would readily admit, and Henry would certainly remind me, that Bell established this position before the FCC had a chance to do anything about it. It should not be a precedent for cable. But on the other hand, I believe continued concentration and significant size increases are essential for realizing cable's potential. Recognize in many areas we will be competing with Ma Bell.

Okay, what about tomorrow? What do I expect? I think that the growth that we would all like to see occur is going to be much slower, much more painful, much more tedious than generally expected. A good part of the problem is one of education. We are in a constant educational process both within our own industry and with regulatory authorities including the Commission, the municipalities, and more recently, some State jurisdiction. It is a tremendously time-consuming process. The Massachusetts Cable Commission, and I mean no criticism in bring them up here, has been a concept for a number of years, it was legislatively born better than a year ago. They have issued a notice of inquiry as to eight broad topics and an application form on which they would like to hold public hearings. I think we have at least another year or year and a half before they can begin operating effectively. These time delays are additive to municipal processing time and the logjam of Certificates of Compliance at the FCC.

The education job is a continuing, time-consuming, process. It is hard to shortcut or accelerate. There is a high risk that regulation based on incomplete information will be disfunctional and counterproductive. As an example, and Henry, I hope you can get me out of this bind, it seems to me that even the best educated regulator, the FCC has set up rules related to exclusivity without thinking through their impact. As I think the rules now read, the cable operator has the right to get information on copyright material owned in a particular market and thereby analyze the extent any imported signal is going to duplicate programming already owned in that market, only after he has standing as an operating cable system.

Now, I ask, how is the entrepreneur supposed to make intelligent decisions on which markets are viable and buildable when he has no legal or procedural right to obtain the fundamental information on how much of the programming on the distant channels, allowed by the new rules, is going to be available for airing and how much is going to be subject to blackout? It appears the cable operator must make his investment "bet" before he can get from the broadcaster the contract information he needs to evaluate that "bet". Now recognize these rules were designed after long and lengthy deliberations at the highest level of government by generally well-informed and wise men and yet a few rather glaring holes have been left. Enough on the subject of why I think the rate of education will restrict the rate of cable growth.

My ten-year vision of cable would provide an industry with considerably expanded penetration. I think we will be into twenty to thirty percent of the national TV homes, say twenty million. I think we will be delivering primarily one-way service. I think we will be doing, God and the FCC willing, a lot of specialty programming, notably sports, pay movies and training of various sorts probably on a pay-extra-per-month-per-channel basis rather than on a random access, impulse demand basis, as Paul pointed out. I think to a limited extent we will be utilizing subscriber response techniques -- simple two-way, yes-no kinds of responses. I do not think that what the MITRE report referred to as an "information handling capability" will be in widespread use; unless there is some major breakthrough in the government's funds allocation system in education, welfare and health service. It would require such a massive stimulus to make this "quantum" jump forward.

We are going to see greater concentration of ownership. It is absolutely essential. The largest companies today with say forty million dollars can probably bring down to the bottom line two or two and a half million dollars after taxes. I would suggest that the bill for the important research done by MITRE on this single report, urban Washington, is probably over $200,000 or say 10% of net income of the industry's largest company. This is research that industry is not now doing on its own, cannot do and will not be able to do until it has a much, much broader base, both of subscribers and of profitability.

I think I will probably cut it there and go on to what I would call the transitional stresses. When Bo mentioned that as a topic I ought to cover, I said well I guess that is like your psychiatrist saying, "How do you feel about it?" (laughter)

I feel a little bit like the infant being taken home from the hospital with adoring parents looking over the side of the bassinet and saying, "There is absolutely no doubt he is going to be a Rhodes Scholar and an All American football player."

What I mean to point out here is the importance of expectation. High expectations are a good motivator for all of us. On the other hand, excessive, unrealistic expectations can be highly destructive. I urge you to recognize the industry as it exists today. Don't become the overadoring parent who in his zeal for making his son reflect everything he would like him to be, absolutely crushes the child. Let us not put the All American football player's uniform on this brittle-boned, nine-pound infant (laughter) because if we do, his bones will never grow and certainly never grow straight.

What we are really dealing with when we talk about this transitional period is realizing cable's potential, and I submit to you that realizing is a verb and it is an active word. We can sit here and we can plan and we can discuss alternative systems configurations and how they might or might not make certain functions easier, but fundamentally this must be a process of experimentation and mistake in the field. We have got to have enough latitude to innovate. In my scheme of judgments, the fuel of this society and the thing that has the promise of making cable what we would like it to be, is entrepreneurial drive. It was interesting to note in this morning's discussion, the broad recognition given to this factor even by some who admittedly have a social planner's orientation.

How can excessive expectations impair the forces of experimentation and entrepreneurial drive? We need only to look at the time and energy that is being spent fending off misdirected, if well-intended, demands and constraints on cable systems. Many of the proposed regulatory thrusts may well be appropriate five or ten years from now, but certainly at this point in time, many appear premature, reflecting a misconception of today's industry and unreasonable expectation of its near-term potential and threat. So number one on my list of transitional problems is controlling expectations.

Beyond that, a statement of transitional stresses would include a substantial list of what to some may appear "nuisance" problems, but to us are real impediments to getting where we want to be. We have distant signal regulations and exclusivity provisions, imposed at the Commission. We have a massive logjam of Certificates of Compliance. We have, in my judgment, inadequate definition from the Commission on a number of subjects: where they intend to draw the line on maximum-minimum standards set by municipalities; what areas of jurisdiction have been preempted and what areas have not been. It appears that we won't get better definitions on these issues except on a case by case basis. That is a long and uncertain process and certainly creates some confusion in the field in the interim. In addition, we face uncertainty related to the pending sports blackouts, pay cable, radio considerations, possible redefinition of cable systems, i.e., the Sterling-Columbia case that was mentioned this morning.

All these decisions, or nondecisions, have very substantial significance for what cable is going to be. Given the energy and time now available within the industry, we never plead our case as well as we should and therefore in each regulatory piece there is substantial chance of a misdirected decisions and from that a material impediment to the industry's development. We have a copyright problem as mentioned by Henry. Everyone in the Academic press deals with it in a footnote or in a short paragraph saying, "Oh yes, of course, this all assumes resolution of the copyright problem." Well, if you knew the number of man-hours from people like Stuart Feldstein, the General Counsel of NCTA, Al Stern, Bruce Lovett, et al., people who would rather be working on problems that are more a part of the verb "realizing", you would realize that these are more than nuisance problems.

In addition, regulation at the state level is emerging in a number of states. At the very least, it presents a massive educational problem. We have new elements appearing at the local municipal franchising scene, people coming in the name of "public interest." I think Professor Oettinger's point this morning must be carefully considered here -- just what is the public interest? I am going to take one sideshot here. Public Cable and related parties filed with the Commission in 1971 asking for twenty percent of the capacity on all cable systems, in the name of education, minority groups, etc., to insure socially useful application of the cable. If that demand is honored, we could certainly expect the Veterans of Foreign Wars to come in for twenty percent, and the Gay Liberationist for another twenty percent, and pretty soon you have given it all away. I don't think you have to be a distinguished economist to see what in fact is being asked -- that twenty percent of the capacity to be built and paid for but not charged to those users -- a simple subsidization by the other eighty percent of the systems users.

Is this a subsidization that should occur? If so, why not directly rather than indirectly? Isn't what is happening here a case of the educators saying "we are so upset about not passing our school bond issue, that we are going to get it some other way -- some indirect way? In fact, the way we are going to get it is we are going to get you to nail that school bond levy on to the cable bills for the other eighty percent of the people who are using cable." I think it is a substantial public policy decision to make this sort of free allocation. The rest of society will pay the bill. The asset doesn't go unpaid for, capital rent is a fact of life. So I think we should exercise great care in going beyond what the cable rules have already proposed, which is one channel on a five-year experimental basis with the provision that if that channel is utilized more than six hours a day, six days a week, eight weeks running, it is expanded to provide another channel.

Thinking in these terms, we should ask so-called public interest groups to demonstrate usefulness that justifies channel allocations outside the normal frame of the pricing allocation system. I think we should be pretty hardnosed about it. Let us not get into a hoarding psychology that demands capacity in excess of what we can demonstrate as socially useful application. I think what I have said related to the educator applies equally well to other special interest groups that come in the name of public interest.

Excuse me for the diversion. I was listing transitional problems.

The next item on my list is the rumored thrust of the forthcoming OTP report. Simply stated, "cable should be regulated as a common carrier." In the spirit of trying not to make a Neanderthal rejection of this proposition, I acknowledge that cable sort of smells that way and, probably I would agree with those who say it will smell more that way ten years from now. However, I object to loose use of that nomenclature today. The words Common Carrier are words of art; they have a very specific meaning to the legal profession. When someone says Common Carrier, my mental image is a wall full of precisely worded law books. My concern about calling cable a Common Carrier is that we will call down on it that wall full of musty volumes with some real chance of smothering this new technology. I believe we should all strongly resist applying the volumes of precedent and case law which surround the word Common Carrier to a new and not wholly comparable technology. Let's be flexible enough to develop law appropriate to cable itself, not blindly invoking some imperfect historical analogies.

Let me talk a bit about where the analogy breaks down. Central to Common Carrier theory is the concept of inelastic demand, that is to say, use is insensitive to price. To maximize profits, the operator is inclined to restrict supply. Necessities generally have inelastic demand. The theory goes that such products and services should be cost priced rather than demand prices to assure broad availability. Is this true of cable, are there any signs the industry is voluntarily restricting the services being offered? Quite to the contrary.

Any rational observer can see that cable is not now dealing with inelastic demand for its services. In fact, it appears that prices set freely in the market by demand are less than those that would be set on a cost basis. Said another way, if cable were forced to cost price there would be insufficient demand. What is now happening is that the cable people themselves are trying to develop new services to create the demand for channels. To talk of prohibiting them from this activity, i.e., the classic hardware-software separation appropriate for a common carrier, is the height of folly. It might be appropriate if and when substantial demand exists, but it clearly isn't now. In the interim no one is more motivated to create the demand than the operator himself.

It's absurd to think of relying solely on forces now outside the Cable industry to create the demand and the sustaining revenue to build this industry. If the objective is expanding Cable's reach and services, I think we do it a great disservice by remvoing the motivation from the guy who is most intimately tied up with the process, who has got the most at stake.

At least for some substantial transition period, more than the rumored five-year period proposed in the OTP report, we should give the Cable operator, as well as others, the opportunity to experiment, to innovate, to make mistakes, to find sustaining revenues to support Cable capacity. Now I am not saying that we could not have some portion of the capacity dealt with in that way but I am saying that to deal with this by removing the cable operator's motivation in the new service development is a mistake. I would argue hard for a hybrid sort of approach until the demand is far more developed.

Well, poorly organized that I am, I tend to run over my time, so I think I will cut it off there. (applause)

MR. CUTTER: Ted, can you give us a brief, clear (laughter) summary? (many voices speak up at once).

MR. LEDBETTER: Bo, let me try to measure - not really measure the impact - because I am not sure it is the impact that to me is most important because having listened to my fellow panelists here, I think I ought to make my thoughts clear in the way I think Cable is going to develop.

Quite frankly, I am not sure that the Cable development in the 1970's is really going to have a major impact on our society. True, the Cable industry will become a major industry. It will change in terms of some ownership patterns in the telecommunications industry, but I think we are all still going to have our personal problems our institutional problems, which are all people problems, people problems Cable can't solve for us. Cable will be a tool in helping us deal with some of those but it will not solve them as a panacea.

In terms of some thoughts about various areas, I would like to just list some things I see for Cable in the '70's. In the first case, in terms of industry patterns, I think that if we look back in the 1980, we can say that in 1980, Senator Geller will announce new hearings on Cable Copywrights. (laughter The National Cable Television Association is probably going to announce a new committee to deal with the increasingly devisive relationship between the large and the small cable systems, the Federal Communications Advisory Committee on Federal/State/Local Relations is going to say we are going to get our report out soon but don't.....(drowned out by laughter and applause).

Seriously, I think in terms of industry patterns we are going to see increasingly fewer companies in the industry owning and operating those systems, partly because I think the common carrier but not rate base regulated pattern will develop. By 1980, I think that Wall Street itself will shut the doors if it has not already done so to new companies developing in the Cable Industry but that doesn't mean to say that there won't be new companies in the industry. Those companies that have the financial credibility and capability in other areas of industry may be able to move in to Cable. For instance, I think by 1980 you can look back and see that IBM has been broken up in 1973 and they decided that "the way to go" was into Cable. We might find, and it might be cleared in 1973 and might decide to re-enter the Cable business. I don't think you should minimize the effect of something like that. We certainly will find that there will be black-owned systems and probably the creation of a predominantly black owned multiple system operator going after franchises in multiple franchise cities for predominantly black communities.

Those systems that aren't built by the MSO's will probably be built to a large degree by local investors using limited partnerships, which are tax shelters where the limited partners can take losses, you know, for the first three years. In some cases, they might turn out to be unintentional tax shelters which will take losses for eight or ten years. (laughter)

Some of our predictions have been based on the impact of Cable and other telecommunications technologies on other areas, such as transportation and jobs. I think seriously that telecommunications can replace some of the business related meetings that we have in our society right now. I don't think it is going to be too extensive however. In one case, I think that the businessmen themselves will revolt against using picture phones because they will find that they much prefer going to Miami or Hawaii for other reasons than just to have a Conference.

I think we will also see teachers in the classroom using Cable Television and other television technologies but not so much as a substitute for themselves, that is not something that they put into a tube in front of the students and the students watch it and learn from that. But more in the way of being a recurrent training mechanism or media for the teachers themselves so that they can keep up with what is happening and then transfer that to the students in the classroom situation.

Now the biggest difference I guess between myself and a few others from that big baby that is going to grow up is really the predictions for two-way Cable communications. I seriously don't see two-way as being a major part of cable television's future. In the first case, when we look back from 1980, we will find out that all of the mayors found out that Cable really couldn't take the garbage out of the community. It could bring some of it back in but it couldn't take it out (laughter).

People who will want to do meter reading will find ways of doing it over their power lines or over the telephone system, will find that there were some experiments with delivering facsimile newspapers in the home. But the fact is a whole new business evolved and it used the boys who were previously delivering newspapers to now deliver rolls of blank paper so that you can load it into your machine to have it printed out in front of the TV set.

Home security, that was an area that was predicted to have a great future and the fact is that home security developed because it is a party line system where everybody is on "the mass" Cable system and all these little "transponders" are sitting out there, you know, dit-dit-dit- to the central computer and home security developed the same kind of problem that evolved on the 747 airplane. As you know, that is the first airplane that has a digital multiplex cable passenger entertainment system. And in that airplane, unlike previous airplanes, there is a central computer on board and it queries all of the switches by your seats and when you push the light switch, well the computer "senses" that and indicates by a light that it is time to go on. Well the biggest problem on the Boeing 747 is that when they show western movies and the guys are shooting it up, the lights flicker on and off, so that became the same kind of problem as the Home Security Industry in that that industry never really developed. However, Institutional Security did develop. That was a serious problem in hospitals where they were concerned about patients, "out in the hallways" and being locked out and watching certain areas, the pharmacies and so on. Institutional Security did develop but it developed on a closed circuit basis.

Power load control is one area that probably will develop in the 1970's. But power load control is not necessarily a two-way use of the Cable. It is when the power company sends signals down the Cable to a special receiver in your home which automatically turns off those devices which are using a lot of electricity- for instance in the afternoon when it is a hundred degrees out in the sun and everybody has got their air conditioners on - that is when New York City blanks out completely. The power company would like to shut off hot water heaters and other non-essential appliances. Well this probably will develop in the 1970's because it is a one-way device but it is warned that it cuts down not only on the capitalization requirements of the power companies but it also satisfies the desires of those who are concerned about our environment.

As it turned out in the 1970's, the water companies were looking for something similar to power load control and therefore they pressured the Environmental Protection Agency to issue TV regulations to reduce water pressure overloads during TV commercials. (laughter)

The real expansion in terms of two-way involves the telephone system and let us look at it very straight. The initial experiment that was widely publicized in that area was a system called "TICCIT" which was developed in The MITRE Corporation outside of Washington D. C. and they used the telephone as the "up" link. Optical Systems Corporation in Los Angeles demonstrated paid television on a Cable System in San Diego and they have developed a system for using one-way cable system because that is all there was, and everybody took it from there. Two-way just never really made it.

However, the telephone company decided that its realm was going to be that uplink and they encouraged that kind of service. Not only did they do that but they encouraged private companies under the Carter Phone Rules to make devices that could be attached to the telephone system and included in those was a telephone terminal very much like the touch-tone unit now with a simple video storage frame grabber device built into that telephone unit and finally there was a big push; there was one big use that two-way cable used. It turned out to be in New York City when Howard Samuels and TelePrompTer Corporation put off-track betting "into Cable". (laughter)

In terms of programming, I am not sure any of us can really say how Cable will turn out or how it would have turned out if there "wasn't a head" but I think the only viable service I can see for Cable in the early 1970's is the providing of first run motion pictures and movies for the pay cable. There were some serious problems as Henry Geller has pointed out and one of your cohorts of the Commision has said in a couple of these traveling road shows - he said that the FCC has a traditional standard approach to all problems; when the problem first crops up the FCC says "now, go away" it's not our problem - you go back to them and they say no - at first they say no, there is no problem - then you come back to them and they say, yeah, there is a problem but it's not, you know, it's not our problem. Three years later, you go back to them and they say, yeah, there is a problem and it's our problem but we can't do anything about it. (laughter) Finally you reach the point where the FCC says there is a problem, it is our problem and we are going to control the whole thing you know, "way up there". So the FCC now has a serious problem and it's called "pay," okay? (laughter)

Pay is developing on those Cable systems. The second stage was when Columbia Transworld leased some lines from the telephone company in New York to put those pay movies into the hotels directly which bypassed the Cable. Within the next, in fact last week, I think, the license was granted to Microband Corporation for multipoint distribution. (There is a long break in the tape followed by distorted voice of speaker.)

That will come along and then will come along those unused UHF television stations that will provide subscription television programming. Then along will come the local distribution microwave which is multichanneled, the microband system being a single channel, and then once the FCC has finally taken care of all of these, then they are going to say "wow, we did it" and then somebody is going to find an economic way to sue an optical laser and that is going to blow their minds. (laughter)

In terms of programming, we have to say - well, when a few of us looked at TV a few weeks ago, looked at televisions' twenty-fifth anniversary, what did they show us? If you didn't see it, you had better check with somebody because I suspect some of the Cable programming in the future is going to be Milton Berle "a technicolor Charles Daly."

I also suspect, and this has something to do with the fact that there are going to be some black-owned systems, but there are also going to be some black-owned network channels and you will find that due to lack of sponsorship, that Julia Child had to drop out of public broadcasting and she enticed Hunt Foods and Reynolds Aluminum to sponsor her on Cable network. (laughter)

In terms of origination, of the programming area, we have to look at the technology.

Now most of you recognize that there has been a two-way battle in the history of telecommunications technology with respect to the consumer, in the two areas, one being the record industry, the second being the television, specifically colored television. In the record industry, CBS and NBC fought it out or CBS and RCA fought it out with CBS having a thirty-three and a third as their speed and RCA having the .45 r.p.m. as their speed. Well, CBS essentially won that with the long play.

When it came to the color television battle, the two of them went at it again -- CBS had a rotating color wheel and NBC decided to go with an all-electronic system. NBC won that one - RCA won that one - so the score is one to one - Right?

The third battle they decided they were going to fight was on what we call the videotape recorder and in this case, CBS took EVR and RCA took the holograph. They didn't count on somebody new coming into the game. The fact is that the Japanese Sony, Panasonic etc., have come along and they have captured that market much to the delight of most of us because we like that competition. I think the equipment works quite well.

But I think that in 1980 when we look back, we will find that even Sony missed the boat. I think that when we look for that low cost videorecorder we will find that the company that announces new "earning highs" based on VTR sales is going to be the Mattel Company. It is going to be based on Talking Barbie technology. (laughter) You think it's not true - eh?

I think there is going to some impact on the networks themselves. If we look back on the development of the radio, everybody said that radio was going to die when TV came along. Well radio didn't. It readjusted. And I suspect the same thing is going to happen when Cable really develops in cities. Cable is going to be giving us a lot of the canned stuff that is produceable in Hollywood or in New York and I think we will probably find that the networks will have to go to more time perishable material. Most of it boils down to sports and news and I guess if I had to project, I would say that ABC will be the sports network and CBS the news and information network and I suspect NBC will be trying to catch up with both of them in both areas. (laughter)

The most important thing, I think when we look back, we can say what happened is that a lot of concerned people met outside of Washington D. C. in October of 1972. They recognized the reality of Cable's potential and they returned to their home communities and they committed themselves to making sure that it worked.

This was the most noticeable change in the 1970's. It was the change in the attitudes of all people that the attitude that education, politics, technology and business could not be left just to the educators, to the politicians, to the technologists and to the businessmen. These people got involved in those fields and that is what made Cable work. We are, Bud, the parents and the relatives of your Cable Baby. He may not turn out to be an All American. He may not turn out to be a Rhodes Scholar, but he is going to be a first stringer and he is going to be interested in learning than just for the sake of getting grades. He is going to grow into a productive and useful member of our society and I am sure you are going to help him be just that. Thank you. (Applause)

MR. CUTTER: I think that the basic conundrum that Ted left us with is that we all went back to our communities to make sure that Cable worked and it didn't. (laughter) I think we can talk about this later on but we should break for coffee now.

(At this point, the meeting adjourned for fifteen minutes.)

MR. CUTTER: One of the members of the Conference, Professor Barnett from Western University in St. Louis, wanted to make one or two comments about Henry Geller's discussion and ask one or two questions and I thought that would be a useful way to start off -

PROF. BARNETT: Thank you, Mr. Cutter. I spoke to Henry Geller right after the intermission and told him what I was going to say so that he could be prepared to rejoin.

What bothered me about his lucid and attractive presentation is its invalidity (laughter) and the fact that his view of history is not what mine is with respect to the FCC regulations of CATV. To the extent that our understanding of history, you know on lines with the slogan "what is past is prologue" - to the extent that this is necessary in order to understand the future - I am concerned that this audience does not believe that they hear Gospel.

This is not really the place for equal time so first let me say basically what I see is the problem. The FCC, beginning in 1958 with the famous Cox Report which was published prior to the time that Cox was Commissioner however, so FCC as a threat to the industry which they had the function of protecting - the over-the-air broadcasting industry - and so recurrently, as problems came up, the problems that Mr. Ledbetter described rather inched their way in, nevertheless, each time the FCC found it necessary to try to stop this interloper who might damage the industry they were concerned to protect. So, for example, at one time when a CATV firm tried to import programs and compete with the local broadcaster in '62, this became the Carter Mountain Decision - why the FCC went to the courts and successfully persuaded the courts that the public interest would be damaged if in fact the local broadcaster was subjected to this competition.

In the first report and order on CATV and I think in 1963, this restriction on importation was further broadened. In 1966, there was a second report and order. In the report, this not only had duplication protection but it also said that there could be no importation of programs with the express consent in each individual case based on evidentiary hearing that the broadcast station would not be damaged before FCC.

And simultaneously, FCC went to the Congress with a Bill which was denied program origination on Cable television in 1968. We know the famous report and order which in effect denied importation by requiring retransmission consent on a program-by-program basis from the broadcasting station which of course didn't have the rights to file that consent and so we had the freeze coming in.

Now the basic history of that whole period, as I see it, was that FCC was undertaking to protect the over-the-air broadcasting industry from a competitor that at first they had denied existed, then said was none of their business, and then tried to sort of gently put in its place and finally had to fight. The reason that we have a major change now is that there has been a major change in the Commission and a change in the Administration and so that a new ballgame begins and right now while there are very many things about the new arrangements, the new rules, that I find very objectionable and I find it a tragedy that public policy is made by calling the CATV industry - the broadcast industry and the copyright owners in to make a compromise deal as if they were in fact the national interest - nevertheless, I think that there is a viable and potential growth situation although slow for CATV.

At one point - just a narrow thing - I read the regulations correctly that in markets from - in television markets - one hundred to two fifty, or something like that, no importation in fact is possible if they now have, I think, three broadcast signals or maybe even if they don't have three broadcast signals. (Undecipherable comment from a participant.)

Now let me only give you references on this material so that we can read the history somewhat better. One item is by Professor Greenberg and myself, Law and Contemporary Problems in Summer 1969 which discussed parts of the 1960's and FCC developments. Another is being published. I gave a Conference on public utilities two weeks ago. It will be published by the University of Michigan. I get no royalties. So I am not trying to get readership for personal purposes. Thank you very much. I hope I didn't take too long.

MR. CUTTER: Now I think that Henry ought to have the chance to respond but perhaps one might phrase the question this way: does - or will the FCC regulate Cable in terms of its relationship of an effect on other communications media or in terms of a definition of the public impact or public good that Cable might have sometime in the future?

MR. GELLER: That is the same thing. I don't know how you get around it. Of course we take into account the impact on the other industry but only insofar as it affects the public interest. To go back to the first thing, the Cox report is not the Commission - that was Congress. But Cox was absolutely right when he came in on the Carter Mountain Case - if you want to take that - what was involved and we were wrong if we thought that was the whole problem but Cable at that time would not carry the local signal. When you don't carry the local - some Cable people had the gall not to carry the local signals and disconnected them - and that means it disconnects the local guy from his audience. They also duplicated his programming. If the Bonanza program was coming in from Denver on the Cable and he was carrying Bonanza, you would watch it on the Cable. You wouldn't quit to get it off the air as you would have to get up and click a switch in the rear. And the result was that the local station lacked audience. Well you might say that we were trying to protect the local station protectionism. Again I find this nonsensical. The local station was the only station serving seventy-seven thousand homes in and this is the figure from the Court of Appeals on Carter Mountain.

If that station went off the air, there would be no local service. There were only forty-four thousand people, I should say, that would be left. There were thirty-three thousand people on the Cable systems in the area. Forty-four thousand people would be left without any service. That would mean that the people in town were getting Denver service at the expense of other people getting no service. Forty-four thousand, if they went off the air, would get no local service. So the Commission came up with the most perfectly reasonable rule I have heard of. They said we will not let you operate, not let you have common carrier unless you put the local station on which is again - I would say it was almost criminal that some of them didn't do it and that you won't duplicate their programming. We started with fifteen days before and after which I thought was right and went back now to simultaneous but then "we are on same day". Again a perfectly reasonable regulation.

I don't know what the fuss is all about and all I can say is that I wouldn't raise that. I think that we were long overdue in that the Cable Industry acted very much contrary to public interest and that is the standard here, not the protection of broadcasting but protection of the public interest. It is important to preserve that service as it is the only local service. Cable isn't going out now to the farmhouse. It costs five thousand dollars a mile to string that - it is getting up more and more - and I am not talking about the major markets but you have to preserve that service. Some people are too poor, don't want to be on cables to pay service and they were entitled to get that.

Let me go on very quickly because I don't think we should quarrel about the past too much. If we "lose another thing", we will lose the future but when you get around to the 1966 report we did make a mistake in one sense, we thought that copyright would come in, would be decided and would solve the problem and we did in a sense say that we had to have this evidentiary hearing. We also asked for legislation that would forbid origination.

That is correct. I think that was a mistake. The staff fought it. When the staff got its way, we crimped origination and the Industry fought us all the way up to the Supreme Court and we won it by the skin of our teeth but that was a mistake. I acknowledge it. It is not one that I think - that we can lay at the Commission's door but fortunately the Congress didn't pay any attention. The Commission reversed itself very quickly, within a couple of years and did go on to it.

As for the Retransmission Consent Proposal - I don't have any apology for it at all. I am sorry that the Commission didn't go on to either commercial substitution or public dividend plan or the retransmission proposal with the modification that came in. A docket also went along with it later, one called "18-1-79". That "docket" would have made available to Cable programming where it would stand up and bid but it would get it on the number of subscribers it had. If it only had a thousand, it had to be made available to the Cable system on the basis that it only had a thousand subscribers and you would pay on two thousand, three thousand. If you couldn't agree on what would be paid, we took up the suggestion of "MCA" and said that it was compulsory arbitration. It would have been the marketplace working instead of all this overlay of yes you can have three signals but you cannot have them and then we went on to nonduplication protection as Bud said.

I am sorry that didn't go. I am sorry that commercial substitution which experiments have proven - as in Canada-now that it would have been a very good thing to do and would have worked also. It had its problems. I admit that but it was pie in the sky and it went under.

But all I am saying is that I don't think these were - I think they would have served again this public interest in promoting all these.

The final point I would make here is that we finally resolved the thing along traditional lines. Again in the compromise thing, our effort was to take into account reality. Above all we had to resolve this cloud that is on Cable's head. It could be wiped out by an adverse decision in a copyright case. There isn't any distant signal we could give Cable then. Now the anwer - and I agree with the Professor that if we could only get Congress to pass a good law we wouldn't have to bother with this - we could get the law and we would move on. The only way we can get a law through Congress is by compromise agreement and the point we were making is that if we didn't go to compromise agreement to do certain things, we might end up - if we throw the dice - wonderfully. But if Cable loses, those suits, and they are not - they won them in the district court but if Cable lost the TelePrompTer Suit in the Supreme Court then our entire scheme of providing them with distant signals, particularly in these markets of fifty-one to a hundred, would go under and we would not be able to move until we got legislation.

One thing has been proven, either side can veto legislation without "consensus" that is why we did it. You can argue it but I think again if Birch had a valid reason for entering into it and again our effort was to serve the public interest to get it moving.

MR. CUTTER: Yes sir - could you move to a microphone and - but we are taping and

A PARTICIPANT: Bo, some reference has been made to the two-way . . .

MR. CUTTER: Would you give your name so we can have -

THE PARTICIPANT: Oh I am sorry. My name is Jim Bell. I am from Atlanta. Some reference has been made to the two-way communication possibilities of the Cable Television. Most of the discussion seems to have centered around the one-way capabilities now. What level of competition or do you see an intense level of competition between the established networks and the Cable System?

MR. CUTTER: Ted - why don't you try to answer that one? (laughter)

MR. LEDBETTER: I was trying to hide down in my chair. Quite frankly I think that the networks, along with local stations, are going to become the programming centres for Cable Television. Most of the competition is not going to be competition in the sense that it is going to try and reach an audience. We realize that those people who watch Cable, who use Cable, subscribe to Cable, for the most part subscribe to get either clearer pictures of the network programming or additional choices in the network programming or independent programming. That is the basic reason people do that so I think those stations are going to become programming centres. I feel so strongly in that that some of you recognize that group that I am associated with went out a month ago and purchased a license to a UHF station here in the Washington area, a station that has never been on the air, and we intend to put it on the air as a programming centre for some black programming and other kinds of programming for Cable systems in the mid-Atlantic region. I think it is a very viable kind of thing. If there is more to your question, then I will answer.

MR. CUTTER: Yes sir?

MR. TEEPLES: Tom Teeples, Arlington Public Schools. A question for Mr. Geller. Would you comment on the one channel educational occasion and additionally could you offer us some guidelines that might facilitate the granting of a waiver by FCC on this occasion.

MR. GELLER: Well, there is no limitation on how much you can, how many channels you can use for educational purposes to come into one channel limitation. As you know, it is free for five years after the trunkline, basic trunkline has been laid. The reason why the Commission did that was that Cable is a high risk, difficult undertaking and we did not want to load it up with a lot of requirements to give away free its product. Education, if it works, can use enormous channel capacity here and you could end up, if you kept doing it, saying we had ten free channels or thirteen, fifteen, and then you are handicapping what is a commercial enterprise with no policy for that.

We therefore thought fine, let us just make it one and make ..... substantial period after the trunkline. This will entice educators to come in unity. It will show what can be done. After that, we thought that education should pay its way. It will have to get funds from the Federal Government from the State Government, but it ought to pay the same as anybody else would pay for the use of this channel thing, the way you pay for the use of an airplane, a telephone, you know the other things. There isn't any restriction on how many you can get. I must say if you want to experiment with more than one "free", you are free to come in, show what you got and say why you need more and the Commission has said we will look at things that allow more than one free channel for this five years period, and if there is something there for experimental purposes, we will, may very well grant it.

MR. CUTTER: Yes?

A PARTICIPANT: Marc Nathanson from Los Angeles. I wanted to talk a little more about that education and about the problems of franchising when one goes into that, when cities require more than one channel in a franchising contract. I would like to also go on to something else that Mr. Geller said and I would like the other panelists to discuss it. I think, noticing most of the people here are from the fifty-one to a hundred market, it is quite disturbing studying the Commission and studying the rules that you have admitted as I think most people have, that they are in a definite lesser position than the bottom fifty market on the theory that one will see what happens and mostly because of the political pressure in the larger markets.

What I am concerned about is to get the panel's reaction to the following. Since there is much more risk because of the size of the larger market and because of the financial commitment on cable operators or whoever, are the new rules so unrealistic in these markets that companies are going to have terrible economic problems and not really serve the public interest. And I would like to raise that question and I think we should devote some time to those fifty-one to a hundred markets.

MR. GELLER: You mean one to fifty or fifty-one to a hundred? (Answer undecipherable)

MR. CUTTER: Henry, why don't you take a stab at that and then -

MR. GELLER: I am repeating a little bit what Paul indicated and that is that in some of these markets-it is the top ten, the very largest ones that have an enormous population, no matter what the Commission did - the programming is there. It is there already. I don't mean you can't give it some time diversity or that you can't bring in some additional support so that is a very serious issue now in the rule making proceeding and that is an iffy question. But if you - even you would be lost in New York or Los Angeles or San Franciso, bringing in additional distant signals. It is very hard to sell things there. So we have always thought that in those markets if the Cable is going to make it, it is going to make it based on a combination of the perfect reception and the new service particularly wire paid TV or the home games of the Redskins or the Yankees or something like that, or the Rangers. But something new had to be added to the equation and I, we persist in thinking that. Now I put all the top fifty together and I tried to indicate to you. I think that is a mistake that eleven of you have no independent -thirteen have -

MR NATHANSON: I am not talking about those -

MR. GELLER: If you are talking about the very largest, you are right. It has always been difficult, it has really always been difficult because they are the universe when the copyright sells everything. They are missing no network and they are missing very little of the non-network programming. There is no - a copyright owner has to sell his product in Philadelphia, Detroit Boston, Washington. That is where he makes his money so it is sold there. If you knock on the door and say I am going to bring you some additional signals, people have a lot of service. I don't mean that you can't get something from them. We think you can and that is why we have done it but we think that the success there depends upon this provision of "new terms of -"

The last thing is the satellite that is coming. It is our hope that as Cable develops in these fifty-one to a hundred, as it gets a bigger base, it may be able to do more networking and with the networking this may provide something more and it is odd to have the big market supported by the smaller but we are almost inclined to think that the new services will come in the very largest markets. But networking may be facilitated by developments in markets fifty-one to a hundred. But it is a difficult proposition.

MR. CUTTER· Bud -

MR. HOSTETTER: If I understand your question Mark, Henry didn't answer it. (laughter)

MR. GELLER: (laughing) - I am sorry about that.

MR. HOSTETTER: I think your question relates to the different exclusivity provisions towards the top fifty and the next fifty and you know we can give Henry another chance to answer it (laughter) but I will answer it briefly which is eighty-five per cent of the copyright owners sales are in the top fifty markets.

MR. GELLER: I gave it a seventy-six per cent figure when I was talking. (laughter)

MR. HOSTETTER: Seventy-six - and when push came to shove and you know the last trades were getting made, that was the nut that he was worried about and I think you know a lot has been written and a lot more will be said about the applicacy of the compromise agreement but it seems to be inherent in the political process that that is how things happen and if Cable wanted any room at all, they were going to be party to that agreement, and those were the terms of that agreement. So I think, looked at in the abstract, there is good public policy or not. You can make the following generalization. Cable grew to what it is today, coming from the smallest markets in towards the middle markets. Cable is going to have its next period of growth in the middle markets but not again in those portions of the small markets that aren't built. The rules are very penalizing there in terms of signals we can import and not in the major, major markets with a few exceptions. Where there are unique reception problems or services that aren't available in those markets, to be practical, hard-nosed, that is where it came out and to describe it as discriminatory is merely descriptive of what happened. (laughter)

Henry used a phrase in speaking earlier that one of the underlying premises of the deal was - and I wrote down the specific words - that they wanted to leave Cable lean and hungry. (laughter) Which, trying to take off my cable operator's hat and put on my public policy hat, I think is probably a better objective than even they may have known. Maybe they, in their esteemed wisdom, saw it but fundamentally what they have laid out before is you now have a shot in these middle markets and these middle markets are going to be marginal in terms of the kinds of services you are used to delivering and there is going to be an economic squeeze so stiff upon you that you have got to make some of these non-traditional services viable to be viable yourself to live in those middle markets.

And I think in terms of inducing development we are going either to induce development or death and I certainly hope it's the former. That is not going to come though in that top tier of markets yet. We are going to have to find that we can do it in the middle markets and then maybe we will move into the top. There is no reception service to be offered in the top fifty market under these exclusivity rules.

MR. CUTTER: Ted -

MR. LEDBETTER: (much feedback on tape) I have got basically three points I would like to make - and a flexible question. One is that - never mind the "dollardness" it doesn't have to be any greater in those top cities - in those cities where the franchise is on a multiple district basis - one franchise for the entire city - we can keep the franchises .... (tape clears)

Secondly I would recommend that the Cable industry not look to - and now I am not trying to downgrade or put a downer on the other industries - but not look to the motion picture industry and the networks as examples of kinds of programming that they ought to be doing. Now earlier when I talked I was kind of I think putting a downer on two-way capacity saying that Cable is going to be essentially a one-way service but I really didn't fill in that in between.

I really see Cable as predominantly a one-way service but one that has a profound impact on the kinds of programming that is delivered to subscribers and I think most of that impact is going to come in the major market cities. For example, and it is an obvious example in that it deals with the black people, now that kind of programming does not exist on the networks. It is not coming out of the motion picture houses now and that is where Cable has an opportunity to develop.

Cable then has to hire and employ people throughout its company and its industry in patterns that really say okay we want to sell that market, therefore we have got to have people who know how to sell that market TelePrompTer for instance and I am sure that it is no secret that penetration in Harlem is not very good. Well, one of the reasons is that they don't really have, their top corporate people really don't understand how to sell programming and they have to have those kinds of people to do that.

Finally I would say that I am less concerned about any specific rule because those rules are as we found out in other areas not the Bible or "that slate". The fact is that every subscriber, every new subscriber that the Cable industry picks up, is an additional vote. And any additional vote means an additional position in Congress and the more subscribers the Cable industry gets, the stronger that industry is going to be in the future.

MR. CUTTER: In the trade, we refer to it as wire power. (laughter)

A PARTICIPANT: Wallace P. Wromley, Department of Psychology at Harvard. I would like to ask Mr. Geller if he thinks that there is a slight possibility that companies, MSO's like Warner Communications and "Vicomp", will have to divest either the CATV or the programming aspect of their business and I would be able to carry on with it too and a second question to Mr. Geller is what, if anything, can you tell us about the OTP Report?

MR. GELLER: On the second one, first, the Report is still, you know, in the works and obviously you can read about it in trade journals. We are happy to see that another agency has just as great leak problems as we have (laughter) but the Report is obviously ..... - it goes along common carrier lines and as I say, I have commented on that already that while we think that the theory is correct we are not sure about the timing of it. I think you have to await its actual submission. I think it is aimed at legislation which I have indicated to you also may be very difficult to achieve in this area. That has been our experience for ten years and there is no reason to think it won't continue to be.

On the first one, Warner Brothers and, whether there will have to be a "divestment" between Cable and production of the things - that is an anti-trust division question although we could adopt rules in this field also to bar it, we have no proposals now to do so. We have no outstanding notices to - we have outstanding notices that would bar cross-ownership between newspapers and Cable. We have barred cross-ownership in the same area between TV and Cable and we have proposals on radio and Cable. We have a notice of inquiry which deals with what you have raised on production and on Time Magazine although it is far off. I think that, at this stage, it is unlikely there will be any action to be taken by us or the anti-trust division because Cable, as you hear, is still a small force. I think that that reason, for example, when TelePrompTer wanted to merge with "H&B" and become the largest company, it got both our clearance and anti-trust clearance because they said they were going to do origination and they needed a bigger base to do it. And I think there will be a lot of leeway given in what I am saying to you in these opening years. I doubt if there will be action taken.

MR. CUTTER: Way back there -

A PARTICIPANT: My name is Creighton Mershon from Louisville, Kentucky. There are a lot of us in this room that represent a city government. Now this question kind of deals with blue sky problems and the public interest. Every time I go to one of these meetings, I think that we have the public interest protected and then I leave and I think well maybe we have forgotten something. It kind of makes you nervous when you think about granting a franchise that if there naturally appears to be a great game going on between cities and cable operators across the country - and it is what can I extract out of you - what is the most I can get out of each Cable company and there is a lot of pressure on cities because if one other - if another city gets more out of the cable operator than you are getting and you look bad in the public eye and they want to know whether you are really protecting the public interest.

Now getting to my question (laughter) is the FCC in the certificating process going to look hard at this franchising process and look at what terms that the city has extracted and is there a chance that there will not be certificating if things are out of line?

MR. GELLER: May I answer that?

MR. CUTTER: Go ahead.

MR. GELLER: Hopefully they haven't come up with the answer to that I would hope to be yes because we are aware of this bidding process. We have run into it ourselves in our history of what they call comparative TV hearings. We are aware of the pressure on the city to get a great deal of revenue. We have had bidding that went up in Pueblo and Colorado Springs to thirty per cent of the gross revenues which is absurd. We are aware that you can have bidding going up because the cable guy wants to get it. I will give you x number of frequencies to use for this, x-number of channels for education our effort has been to say no. That is why we have said no and that we will look at it. We are aware that there are some - this is a new industry that you have to leave something for experimentation but I can only answer that we will be tough on it because if we are not, it will just go haywire again under the pressures of it. We have been through that cooker ourselves.

MR. MERSHON: What I am concerned about is that the city is going to grant a franchise with a lot of blue skying provisions in and that perhaps the cable operators in their anxiousness to get these franchises are going to bid these kind of things.

MR. GELLER· Sure.

MR. MERSHON: And then people are going to leave the battle scene and go on to other cities and then you are going to be stuck with maybe something less. I don't know if -

MR. GELLER: You know all I can do is urge you to do it right. (laughter)

(General discussion between Mr. Geller and Mr. Mershon covered by much laughter.)

MR. GELLER: If you are engaged in this bidding process and the cable guy is willing to do it, he has got another back-up there. You get "into a bidding one" and you finally choose somebody because he will give the city eight channels and the other guy would only give six, and here comes the FCC and the FCC says well we told you to make them all separable, we urged you to make "provisions separable." We approve, we give you the certificate but we are striking that portion and we are saying that it cannot be implemented and you just choose somebody on a basis that just evaporated. And that is why we say we urge you to do it right and we mean it. Don't go around trying to - if the guy says sure I am willing, I am willing to go to fifteen - when it gets to the Commission they are going to say no.

MR. MERSHON: You are very specific in that area but not in other areas.

MR GELLER: I know and I said to you at the beginning -

(Mr. Geller and Mr. Mershon speak together.)

MR. MERSHON: Origination in paying for all these public access channels and free hook-ups -

MR. GELLER: Let me - all I want to say in that area is that you have to realize the position we were in. It was a major struggle to get out. The distant signal thing which we were focusing on, that was the baby we had to get out or there was no movement at all. There was a freeze on and we put a great deal of effort and sweat into getting that out. We did some part of access and we got the Federal and State - I admit to you that we just made a beginning and you are entitled to far more guidance and Bud is right also.

MR. MERSHON: Is that coming?

MR. GELLER: We are working on it now. (laughter)

MR. CUTTER: Bud, you are way ahead in the game right now but do you want to comment?

MR. HOSTETTER: I would just say I would have to say "right on" to the man from Louisville or whatever his town is. I think the Commission has really waffled in this category. In the field, we desperately need some guidelines, some clarifications of what will be and what won't be certifiable and I suggest to you people that the certification process as it is now structured is not likely to do that because what happens is that you have lost the advocacy proceeding the antagonist proceeding by the time you come to certifying and the city and the operator come in and they say jointly, we can run this system for two and a quarter a month giving away eighty-three per cent of our capacity and funding your public library and your schools for the next ten years. (laughter) And the city says he said he would give it to me and the cable operator says you know we are sure we can make it work and you have lost. You know there is no one in that process to keep anybody honest and I think it fundamentally comes back to the city exercising some discretion in terms of what they feel is a sustainable and economically viable proposal and what represents a totally irresponsible pitch. Don't look to the - unless you got through to Henry better than some of us have over a period of time - (laughter) - don't look to the Commission to come up with this in any big hurry. I think it is right in your laps and you are going to have to make those decisions.

MR. GELLER: Another insult. (laughter)

MR. HOSTETTER: The records support me Henry. (laughter)

MR. CUTTER: Paul?

MR. VISCHER: As a spokesman for free enterprise here, I am quite surprised that you would want to have regulations right now. I think if the company wants to be lean, wants to be hard and wants to make his bed on it, that ought to be his choice. So why place restrictions on him?

MR. HOSTETTER: Because unless the city is sharp enough to this issue they are not going to differentiate the responsible from the irresponsible proposals and they are basically not equipped with any sort of guidance at the Federal level and I think in terms of consistency of overall National Cable policy it is just a disaster unless the Commisssion sets out some guidelines which at the very least go at a few levels of abstraction below the only place the Commission has spoken on this issue which is Dean Birch's speech to the convention last year, where he said don't play games with fees and free channels. You know that is precious little guidance on some pretty critical decisions.

MR. CUTTER: Let me break in. This is obviously one of the critical questions that is occurring in the field now and it is going to be one of the over-riding issues that we discuss in several of the panels tomorrow. Tony Calderon wanted to ask a question?

MR. CALDERON: Thank you. My name is Tony Calderon and I am a "Chicago" - if you have never seen one, take a good look because I am the only one here. (laughter)

My question is to Mr. Geller. One of the major disappointments to Chicanos, besides commercial televison for lack of involvement of a minority group, is the educational network, corporations in their broadcasting have not done much to allow minorities to merge into expecially the production end of things. They were up for a two-year funding recently. They were funded finally for one year.

My question is does the FCC have any jurisdiction on corporation broadcasting in regards to an equal employment opportunity clause that could be placed in their funding because I feel that unless the pressure is brought to bear in that respect and for them to produce results in this area, we are not going to see any Chicanos, we are not going to see any black producers in the future coming from educational television.

MR. GELLER: We don't have anything to do with their funding as that is all done through ATW. On the other hand, we do have policies we have adopted and "Reporting Form 395" and a series of rules that do require affirmative programs of equal opportunity dealing with minority groups including "in positions". These are designed to see whether they are in positions of importance such as production, reporters and so on. We are beginning to implement that in a series of decisions. The most recent was in the, did not involve Chicanos because it occurred in the Delaware-Philadelphia area and it involved blacks but we wrote a large number of stations on the basis that their reports showed very little gain - zero, zero and employment unusually low. And we wrote them to find out what they had been doing, what affirmative effort they had been making and why they had resulted in no improvement?

This is the beginning of a program that - we are also dealing with petitions to deny "the come-up" in this field. All I can say is that we have our own program in this area. We are moving to implement it. Some could argue that we could do a better job. I don't know if you are aware that Commissioner Hooks is - the Commission met today to set up a special unit within the Commission that would deal solely with this issue - would bring great expertise to it and would be able to focus on it and give it a high priority and so that is what we do in this area and it is very much current in choice now.

MR CALDERON: Well I am very pleased with Commissioner Hook's statements recently since his appointment but what I am saying is that if you can accept any kind of results from an agency like the Corporation for Broadcasting, it has got to start at the top and right now, I know that the Government has a lot of red tape, advice, suggestions and governing power - take for example on the Board - the Corporation Broadcasting has about fifteen, no about eighteen members and only one black and I kind of feel that the reason that they have not been responding to the minorities has been in the Board's structure and perhaps this can be a tie-in with what you are doing with HEW.

MR. GELLER: Well, let me just say that from the PBS point of view, that is the networking - they are the one - they get grants of money from CPB. But PBS - I don't know what it is doing in the Chicano field and in the field of black programming. I am now just speaking as a person. The FCC does not regulate programming in this sense. I thought they were doing an exceptional job in comparison to the commercial networks. They have Black Journal and others. The problem was that - I know I am talking black again to a Chicano. (laughter)

MR. GELLER: I am saying in comparison to the commercial networks -

MR. CALDERON: They have got the Government funds to do it.

MR. GELLER: I agree that they should do it - but what I am saying to you is that they were devoting resources to it. Not enough. I am not saying it was adequate but they were doing a job in this area and I think that they deserve some credit for doing it. I am sorry some Southern stations didn't carry these stations and that poses another problem for the Commission.

MR. CUTTER: I am going to cut in for one real reason. Henry told me that he had to leave at twenty minutes past five and it is twenty minutes past five.

(Undecipherable comment) Oh! (laughter)

MR. WRIGHT: Taking into consideration - I can't do nothing about that. (laughter)

Taking into consideration the Commission's track record and dealing with granting the license of stations, I mean it has been a blanket licensing procedure. You know some of these people who are involved in cities will know the real facts. What are the ingredients that are going to be added into the Cable that is going to make you look at them that much harder than you have looked at this regular television station?

MR. GELLER: Well, we are not going to look at Cable at all in that sense - we do not license the programming of Cable. There is no renewal thing.

MR. WRIGHT: You know I am talking about the certificate.

MR. GELLER: Even when you get to the certificate and let us get on to that, what we are going to look at is whether they have access channels - Bill, you know, and that is important in order to get it into the top fifty market within thirty-five miles, you have to show that you have this large channel capacity, one for one broadcast for non-broadcast. You have to show twenty-channel capacity. You have to show you have a public access channel and it must be made available up to five minutes free. They must have the facilities to do that.

This is an effort to get programming out there and I don't think anything will be granted unless they meet those access things. I believe that they will adhere to that. I submit to you that in the renewal field, in the broadcast one, it has not been an exemplary record but I am saying to you here that I cannot imagine a certificate being granted that does not have these access requirements for education orpublic access for the governmental one. They will have to show regulations that show that they are going to allow it on a first come, first served basis. After that, it comes down, and here we have a very difficult problem, to whether the franchise is inconsistent in the sense - is it getting six per cent, seven per cent and then there are the grey areas that we have not covered and I admit we have not covered.

I think that we will adhere, also as I said to you, within the areas that we have laid down guidelines. They can't be more than three to five per cent, that they can't be. And that you must have a reasonable construction period, you must show what you are actually going to cover. Beyond that, I don't know what we are going to do. You have got to realize that we are in a different field here and that is why I think the Commission would adhere to it. I really do believe that in this area it will. In the other area that you were talking about, it was an area of programming and - which we are not involved with here - whether they were serving interests and needs in an area; that is a different question.

MR. CUTTER: Henry, why don't you - let me interrupt just a minute - if you wish to leave, just because of your own?

MR. GELLER: How long does this session run to?

MR. CUTTER: The session will - we can all go to cocktails starting around six thirty (laughter) - so we have the time to go really roughly until six.

MR. GELLER: I can go to five thirty.

A PARTICIPANT: I have a question to Mr. Geller that will probably only take ten seconds to answer.

MR. CUTTER: How long will it take to ask? (laughter)

A PARTICIPANT: The gentleman on the other side asked him, with regard to the cities, a certain question to which he said just do it right and I would like him to answer how to do it right?

MR. GELLER: What I meant to say was what Birch said in his speech. And it was a speech that I was involved in that said don't play games. I think this is - and we have been through this game playing as they say in the comparative TV thing - this is a terrible tendency to have bidding up, to bid up on the city. The municipalities want funds - to build up on it and to say this is one solution as we can get a little money here. We said don't do that; there is a tendency to play games perhaps in free channels. We said don't play games there, this is a serious commercial enterprise. We have given the public access channel. We have given one to you and one to the educator on a free basis, but for the rest of it, pay your way. We have given some. We have also indicated in certain areas where the city ought to focus, ought to have public hearing and say without giving too much definition. We have also said that you ought to have a construction program to insure that they don't just get it, sit on it and traffic in it, that you ought to make sure that there is a building program that equitably covers the entire city, not just the affluent.

We have laid down a number of prescriptions. I would agree with Bud that we are just beginning but that was - that there are an awful lot of places where - when I say do it right we haven't covered at all. We are just going to have to blaze a trail. You know you can't make it come full out of a Federal thing saying here is an overlay. We don't know enough about Washington to do it as we are learning too. We are very good experts in distant signals. We have played that game for so long that we can do that. But when you get to this other thing, we just went to two obvious things and we are going to have to learn and involve it and if we don't do it in fast enough time then I would urge that it would just have to be done locally with the help of Cable Television officers and other things. But we didn't know enough to lay down a Federal prescription in every area. We could not do it, that's all.

MR. CUTTER: Thank you.

PROF. BARNETT: Could I ask a question please?

MR. CUTTER: Surely.

PROF. BARNETT: Presumably the Federal - the present agreement came out of a compromise among industry, among the Cable industry, the broadcasters, the copyright holders. Presumably the Federal Government was represented presumably by the public interest as opposed to those private interests, were represented by the Federal Communications Commission. On the other hand, we have seen that the Federal Communications Commission's hand is hardly a sure hand on this tiller. A really serious question is if we intend to have national policy from a Federal Government agency, how should this be improved in the opinions of you experts at the table and secondly, should an alternative to Federal intervention as opposed to State regulation or city - should an alternative not be what Mr. Vischer proposed that the Federal Government should get out of this entirely.

MR. GELLER: I am disqualified. (laughter)

MR. CUTTER: Henry has disqualified himself. I will ask Paul to answer the question.

I want to interrupt just one second and thank Henry Geller very much for taking part in this. (applause)

MR. VICHER: (background noises) I don't think I propose .... entirely - I think that the ....has a very useful role - they certainly authorize frequencies. They certainly try to maintain a balance among various options. I was just simply opting for maintaining a fairly free environment for the formative few years. I don't know whether that is five years or ten years. I think there are too many uncertainties in the programming needs, too many uncertainties in the kinds of services that might be economically viable, too many uncertainties in the technology to try and have too clear a vision, too much of a pattern at this point of time and I was really opting somewhat for the innovative market forces operating during this period. I think that five or ten years downstream, the Government certainly has an obligation to protect the public, to speak in the public interest and in case ten years downstream, things have gotten out of balance, the agricultural community has not lost a broadcast service because of Cable and I think there is a real obligation for the Government to come back in and sort of re-establish the balance.

I am just saying that .... I have a paper solution, an engineering solution. Try to provide a fair level of environment and innovation during this creative period and look at it ten years downstream and try to re-establish the goals that I find.

MR. CUTTER: Ted.

MR. LEDBETTER: ....in terms of the role of the Federal Government. There do have to be guidelines and those guidelines should be performance guidelines, not equipment guidelines. Secondly, in terms of that Louisville situation, as far as I am concerned, any city and Cable operators that go to the FCC for a certificate saying you know some ridiculous terms, deserve to be married with each other. (laughter)

Finally I think that a lot of us tend to forget that the FCC is not an agency of the Executive Branch of Government. It is a Congressional Agency and that if we are to influence - if there is a policy-a national policy - then the proper vehicle for that is through Congress. We tend to forget that. We realize it when it comes down to bussing or some kinds of issues. But when it is something like Cable Television it is important that we change our views and do it in a way that they recognize how we feel about it.

MR. CUTTER: Yes sir?

A PARTICIPANT: (Tape sounds like: "Charles Tate, National Urban League" (?)) I was concerned by a sort of a tone that was set this morning which is the "current trend" that often black minority participation is put in as if it was necessarily in conflict with the needs for an economically viable situation and I would like the person that represents industry to speak about that but I would like to "interject" my thought that number one is not necessarily an accurate assessment. As a matter of fact it would be unfortunate that was set whenever the question of united participation was raised because I think that there are some legitimate and economically viable situations in which the industry could survive and grow and people could look at it as one of the options of economic development.

MR. CUTTER: Bud?

MR. HOSTETTER: I wouldn't want to try and, if you got that inference from this morning's session, I would not want to try and defend it. I don't think that in my judgement they are necessarily in conflict. Now I think in fact, speaking very practically, from the industry's point of view, we are engaged in some massive power confrontations with existing industries that make us very natural allies and I think our best interests are from a very pragmatic point of view advanced if we can rally allies in that power pressure. So I am not only encouraging it as sort of a philosophical affinity but I encourage it from a very practical point of view.

MR. CUTTER: As Radio Free Europe used to say the audience is voting with their feet, so we will take maybe two more questions and then close it up. Yes sir?

A PARTICIPANT: Bob Steiner from Cincinnati. I think my question would be to Mr. Foster and it has to do with (laughter) sports programming and at least two things that seem to be on the horizon. One of which is the "Pastore Bill" or possible legislation of that kind which would require or prevent a game from being blacked out if it is sold out forty-eight hours in advance and to that might be appended the other requirement that it be on so-called free television. That iis to say that it could not be simply reserved for a Cable System. The second thing is that proposed sports rule in the making in the FCC which as I would understand it would prevent a game on the same day of the same sport going through a distant signal and bringing in a game of the Cleveland Indians in Cincinnati if the Cincinnati Reds are playing there. If both those things - my question is if both those things happen, what is the impact of that on the development of Cable in the top fifty markets.

MR. CUTTER: Bud, I think you are in Mr. Foster's place.

MR. HOSTETTER: Ask Mr. Foster to answer that question will you? I am not sure I understand it Mr. Steiner, could you - ?

MR. STEINER: Well, there are several things which seem to be in the wind which would make it more difficult to show sporting events on Cable and I am asking the impact of - in the major markets - on the sale of Cable Systems not yet erected if these things happen. The first is the "Pastore Bill" and the forty-eight hour thing which I understand from reading the MST point of view that they wish to say that if a game is sold out that it can't simply be reserved for Cable Systems, that if it has to be shown at all on the over-the-air television and so then I presume that things like the Nixon Rangers package - you wouldn't be able to do that anymore.

The second thing is the question of using distant signals to bring in games of the same sport. I understand that it is presently permitted that under the proposed rule-making, in front of the FCC, you would not be able to bring in a game of the same sport on a distant channel if your own team was playing. Again I ask what - if those two things occur in such a way that the local Cable operator can not bring such sporting events - what will the impact be on development of Cable in the major markets? Is that clear?

MR. HOSTETTER: Yes, clearer. It is a very complicated answer. The proceeding at the FCC and the "Pastore Bill" with the go, no-go alternatives on each of those, have very different implications for Cable. I think that trying to answer it is a generality and I would be glad to talk later with you specifically.

The generality is and again I hate to be a pragmatist, but pay-Cable, pay-movies, pay sports are, have got a substantial public image problem to overcome, witnessed particularly by John Pastore's temperature and the way he responds to the thought that professional sporting events of major proportion are ever going to get on paid TV. His response was basically not as long as the Senate of the United States sits. So I think you have to take as given that we have a very, very uphill road on what appears to be the first and most promising additional services on Cable. I think we have a terrible, a massive public re-education, legislative re-education job to do. Your reference to the Nixon Rangers is a little different proposition in that those have not been traditionally broadcast there within New York City and rights to those games were exclusively bought by the Cable System without taking them off, having previously been on the air and that seem unobjectionable to the society generally and John Pastore individually. It is all wrapped up in this whole morass of you know, can we reasonably expect to make a business out of offering first run movies and top grade sports events on a pay basis?

A PARTICIPANT: Ross Rimmons from the Commerce Department. This question might seem best directed to Henry Geller, but maybe it is better to get a practical answer than an official answer. (laughter)

MR. CUTTER: Well, in any case, it's impossible.

MR. TIMMONS: I understand the difficulty in writing Federal rules that apply to East Elbow, Wyoming and equally to Cincinnati, Ohio. I can understand why the rules are as fuzzy as they are but short of granting the franchise, having it go up to the FCC and not getting the certificate, what avenues are open for cities to get clarification on rules and especially on some of the things that aren't mentioned in the rules, the sort of traditional ways of sweetening the pot like offering free hook-ups for schools and stuff like that - what can a city do to find out?

MR. CUTTER: I suppose that I may be one logical person to try and answer that. It is not really clear to me. They can - as many cities have - go and talk to the FCC, write to the FCC. One can attempt to discuss with members of the Cable Bureau proposals that come in or applications, forms that cities develop. But it is my own sense, and I am as puzzled to it to a degree as everybody else, that there really aren't many things that the cities can do it find out how seriously the FCC is going to take the stance. Henry Geller, for example, is enunciating that the FCC is going to lean very hard on the rules and interpret them very strictly. If this is so then the city's course is less ambigous. But if they are going to get bored with the certification process, if things are going to begin to flow out reasonably quickly and there are going to be some shadings as to what the rules really mean, then the game is wide open again. This is a very unsatisfactory answer because I guess the circumstances are unsatisfactory but I can't think of a better way to answer. Why don't we take one more question and it is way in the back to my left?

A PARTICIPANT: I don't have a question but I have a statement. I am here for the League of United Latin American Citizens but I would like to take that hat off and put my other one on. I am with the FCC on the trial staff and we are investigating this AT&T rate case. I would like to say that this is a two-way thing that we are talking about. The Cable companies have to work with the FCC and, of course, you have to give us the information. We have the problem of getting things out of AT&T. It is like pulling teeth and companies have to realize that it is to their benefits to cooperate with the FCC. Thank you.

MR. CUTTER: Thank you.

Well, why don't I summarize our session today briefly by telling you the panels tomorrow, and the questions that seem to me to really have been raised. This is in part a mandate to the moderators who are all present.

In the morning, the panels will be Economics and Finance, Ownership, Community Programming, Minority Participation and - (comment from the audience, undecipherable)

It seems to me that in the Economics and Finance Panel, in addition to considering Herman Kahn's general sense that organizations like MITRE and the Cable Television Information Center are kidding themselves insofar as how much planning we can do - that one of the core questions really is the bidding issue. What are cities asking for? What does what they are asking for cost? And what is the impact of what they are asking for that costs on Cable companies and on the development of the Cable companies? That issue obviously is important for the other panels, but it seems critical to me that we consider that the trade-off issue under that panel.

The Ownership Panel covers a range of issues that we really never discussed or one that was discussed only very briefly in the morning but which I think is one of the two or three major cable concerns now. That is to what degree is public ownership going to develop? What are the real advantages and disadvantages of such ownership?

In the Community Programming, Origination and Access Panel, the issues really seem to boil down to posing the specific against the general, the criticisms of origination. I am sure those of public access tend largely to be quite specific. It is dull, it is poor quality - people aren't going to watch it. The support tends to be fairly general but if it is going to change the nature of television or the way people deal with communications, then it needs money and time to prove this. I think we are going to have - we ought to begin to ask will it really change things? Is this form of it the best form? And why do we care whether it changes things or not?

The Minority Participation Panel has to ask in what forms is minority participation going to emerge? I don't think in Cable the question is "Is it going to?" But really "in what forms?" How is it going to be financed and what might be the economic development effects? We sometimes talk a great deal about the economic development effects but in a capital intensive business with negative cash flows for considerable periods in the early years, one wonders what those may really be.

The Commerical Services or the Commercial Programming Panel seems to have the task of developing some form of short term schedule; what is going to happen next year and the next couple of years that is different from what is already happening.

In the Regulation Panel, it would be interesting really to see two or three things discussed. First the emerging competition between very different views of Federal regulations between the FCC and specifically the OTP. OTP tends to have a sense that one defines an ideal Cable System or Cable world and then works toward it. The FCC is much more ad hoc and I would say practical and pragmatic in its judgment.

Another emerging issue which we have discussed only in the sense of alluding to it this afternoon is the whole Federal/State/Local question and finally here again, we have to discuss the issue that rose in the middle of our conversations here, the bidding question. What can cities legitimately ask? What is the FCC going to allow them to get away with? Why do Cable companies bid in if they think what is being asked is too expensive?

In the Special or Public Programming Area, I felt a very considerable strain between the sense of those who are interested in programming that requires almost a hundred percent penetration before it will be terribly interesting and the sense of most of the people on this panel that ten years from now, we are going to have thirty to forty percent penetration in the major television markets. To what extent is an interest in public programming - kind of public service programming - programming for medical purposes, for educational purposes - for public institutional purposes "a real concern at all".

And then more specifically, we might ask of the Government representatives here, to what extent is the Federal Government going to put any significant money into this area over the near-term future?

And finally in the Technology Panel, we ought to ask what is an appropriate design for today? What ought a city really to be thinking in terms of? Can modular systems be built that will change relatively easily as technology and demands change? And finally what is real in terms of these developing technologies that may change the nature of the Cable business altogether?

I hope that we discuss these sort of questions in a hard and real fashion tomorrow. Thank you for today. We look forward to the next two days. (applause)